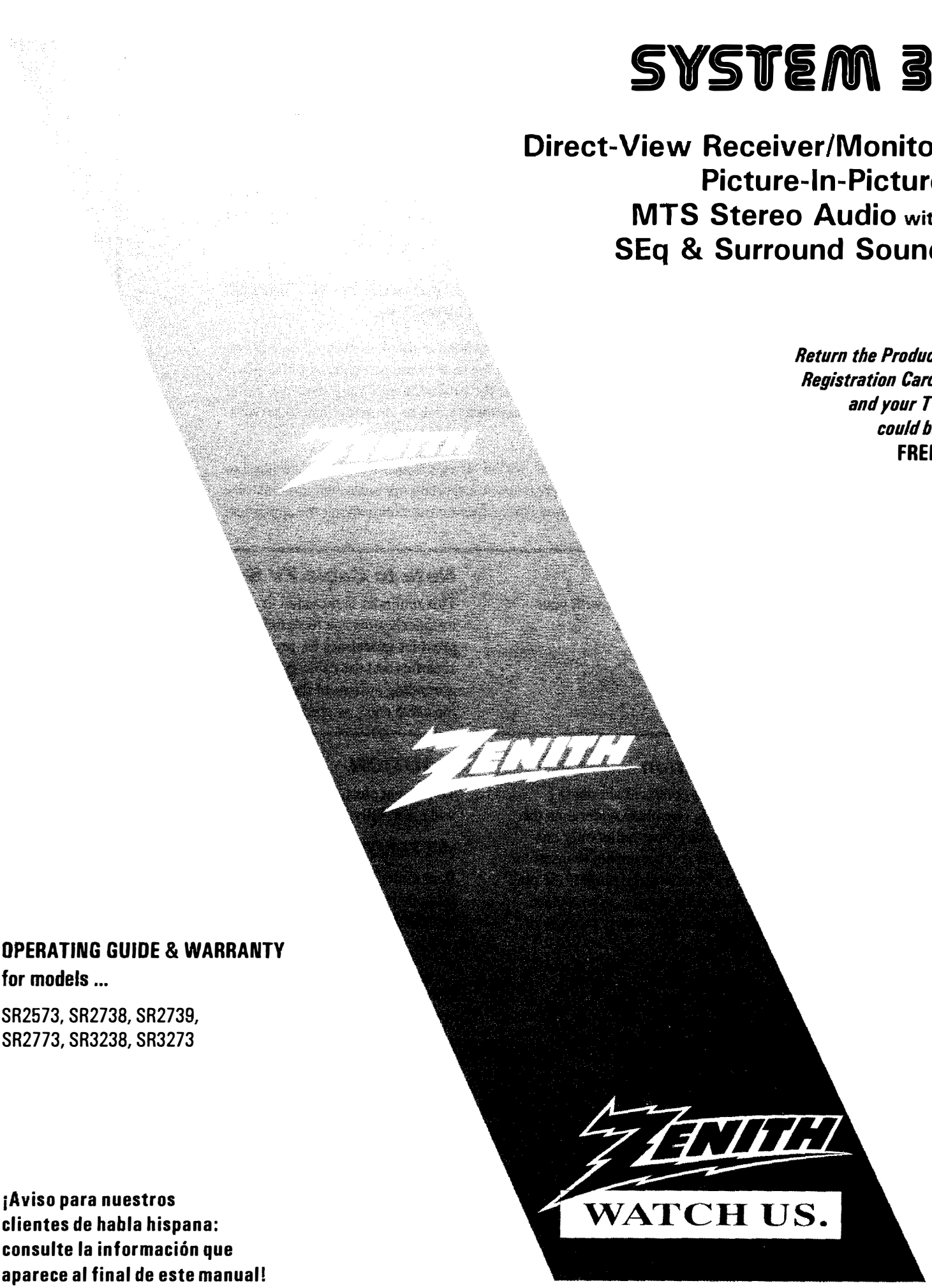
SYSTEM 3

Direct-View Receiver/Monitor
Picture-In-Picture
MTS Stereo Audio with
SEq & Surround Sound

***Return the Product Registration Card, and your TV could be* FREE!**



OPERATING GUIDE & WARRANTY
for models ...

SR2573, SR2738, SR2739,
SR2773, SR3238, SR3273

¡Aviso para nuestros clientes de habla hispana: consulte la información que aparece al final de este manual!

WARNING

RISK OF ELECTRIC SHOCK
DO NOT OPEN

WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER TO QUALIFIED SERVICE PERSONNEL.

TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Safety Tips

Refer to the "Safety Tips" booklet that came with your product for important safety considerations.

Note to Cable TV System Installer

This reminder is provided to call the cable TV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of the cable entry as practical.

Power-Cord Polarization

This product is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other.) This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

CAUTION

To prevent electric shock, match wide blade of plug to wide slot, fully insert.

ATTENTION

Pour éviter les chocs électriques, introduire la lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.

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Product Registration Card
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Aviso para nuestros clientes de habla hispana
Your Zenith Warranty

FEATURES PROVIDED WITH YOUR TV

This operating guide describes a family of TV models. Not all models have all of the features described in this guide. Different control panels may be used from model to model. Most models include the following features:

• On-Screen Menus Accessed By Remote or TV Controls	• Sleep Timer and On/Off Timer
• Picture-In-Picture	• Automatic Channel Programming
• Multi-Brand Programmable Remote	• English/ Spanish/ French On-Screen Menus
• Parental Control	• Audio/Video Input Jacks for Stereo VCR
• MTS Stereo with SEQ (Spatial Equalization)	• 181 Channel Tuning, STD/ HRC/ ICC Bands
• Surround Sound Speaker Connection Jacks	• Antenna/Cable Input Jack
• Closed Caption and Text Modes	• Variable Audio Output Jacks
• Channel Labels for Easy Channel Identification	

(Design and specifications are subject to change without prior notification.)

INTRODUCTION

WELCOME

Welcome into the family of Zenith Color Television owners. This guide provides instructions on how to operate your new TV. It is supplemented by a booklet containing Safety Tips. We urge you to read these publications carefully so that you will receive full enjoyment from your new Zenith TV for many years to come.

Your new TV has been designed and built to give you the very best in quality, features and performance. There are thousands of Zenith authorized service centers throughout the U.S., Canada and Mexico who can attend promptly and effectively to ordinary service needs.

If you should have an unusual performance or service problem that cannot be satisfactorily resolved by your Zenith dealer or Zenith authorized service center, contact us at:

Zenith Electronics Corporation
Customer Service Department
1000 Milwaukee Avenue
Glenview, IL 60025-2493
Telephone: (847) 391-8752
Mon-Fri, 8:00 a.m. - 4:30 p.m. Central Time

Provide the model number, serial number, and date of purchase or original installation, with a full explanation of the problem and the service history. We will welcome the opportunity to look into your specific question or problem and to be of assistance in resolving it promptly.

The model and serial numbers of your new TV are located on the back of the TV cabinet. For your future convenience and protection, we suggest that you record these numbers here:

Model No. _____

Serial No._____

INSTALLATION CONSIDERATIONS

Before you install your TV...

Ventilation — Proper ventilation keeps your TV running cool. Air circulates through perforations in the back and bottom of the cabinet. Do not block these vents or you will shorten the life of your TV.

Power Source — Your TV is designed to operate on normal household current, 120 volt 60 Hertz AC. Do not attempt to operate it on DC current.

Power Cord — Your power cord has a polarized plug as required by Underwriters' Laboratories. It has one regular blade and one wide blade and fits only one way into a standard electrical outlet. If the blades will not enter either way, your outlet is very old and non-standard. A new outlet should be installed by a qualified electrician.

Safe Operation — Your TV is manufactured and tested with your safety in mind. However, unusual stress caused by dropping or mishandling, exposure to flood, fire, rain or moisture, or accidental spilling of liquids into the TV, can result in potential electrical shock or fire hazards. If this happens, have your TV checked by a service technician before using it again.

Please read and observe each safety point in the "Safety Tips" folder when installing and using your TV.

VIDEO GAMES AND OTHER FIXED PATTERN DISPLAY CAUTION — If you use your TV for video games, teletext or other fixed displays, avoid setting the BRIGHTNESS control for an excessively bright picture. A bright, fixed pattern, if used for long periods of time, can result in a permanent imprint on the TV picture tube. You can reduce this possibility by alternating the use of the fixed pattern display with normal TV picture viewing, by turning down the CONTRAST control for sustained fixed pattern use, and by turning off the fixed pattern display when not in use.

PLUGGING IN YOUR TV — Be sure to plug your TV into an "unswitched" AC power source. The "switched" AC outlets found on some video equipment will not continue supplying power to the TV once the equipment is turned off. If the power to the TV is interrupted, you will have to reset the clock in the TV to the current time.

CONNECTIONS FOR YOUR TV

CONNECTION CENTER

SPEAKER EXT/INT
Select EXT (external) to remove sound from the TV's speakers.

Select INT (internal) to hear sound from the TV's speakers.

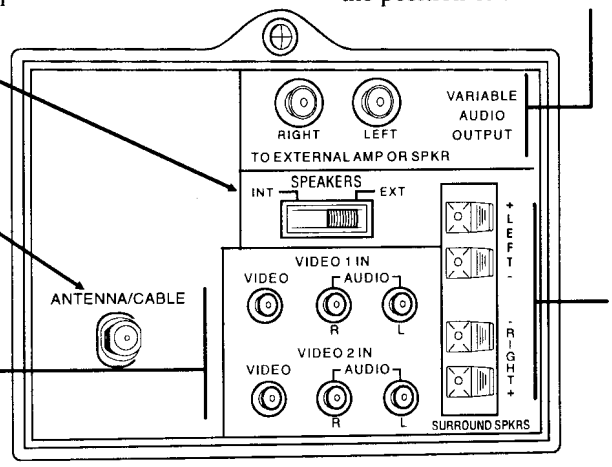
ANTENNA/CABLE
Jack for 75-ohm antenna or cable-TV connection to your TV. Attach your antenna, cable-TV line or VCR to this jack.

VIDEO 1 IN OR VIDEO 2 IN
Jacks for audio and video input from a stereo VCR or other A/V component.

You must make A/V connections to these jacks in order to hear stereo sound when playing a stereo tape.

VARIABLE AUDIO OUTPUT
Connect these jacks to the auxiliary input jacks of a stereo amplifier to listen to your TV through your stereo system.

Output audio is always present at these jacks regardless of the position of the SPEAKER switch.

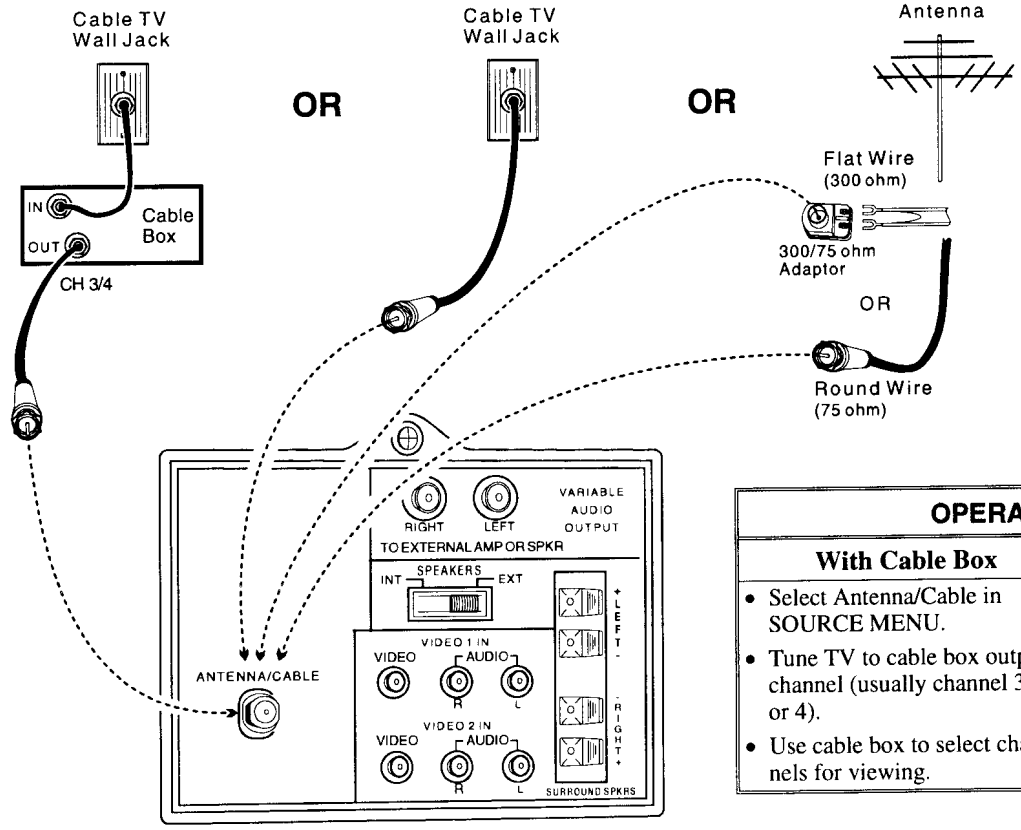


SURROUND SPEAKER TERMINALS
Connections for output to optional surround sound speakers.

TURN OFF POWER OR UNPLUG TV BEFORE MAKING ANY CONNECTION.

BASIC CONNECTION TO TV WITHOUT VCR

If a VCR will not be connected to your TV, you have three basic connection options, as shown.

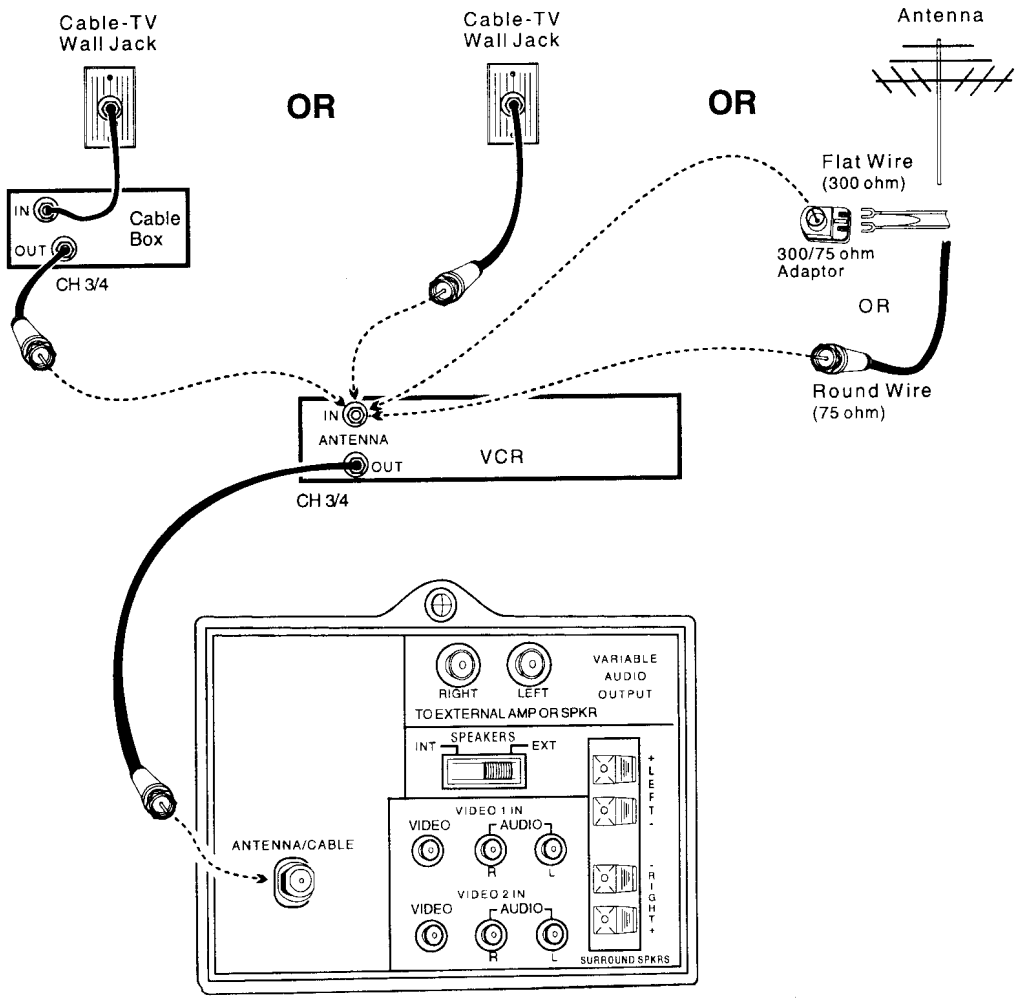


OPERATING YOUR TV	
With Cable Box	**Without Cable Box**
• Select Antenna/Cable in SOURCE MENU. • Tune TV to cable box output channel (usually channel 3 or 4). • Use cable box to select channels for viewing.	• Select Antenna/Cable in SOURCE MENU. • Use TV to select channels for viewing.

CONNECTIONS FOR YOUR TV

BASIC CONNECTION TO TV WITH VCR

If you are connecting a VCR to your TV, you have three basic connection options, as shown.

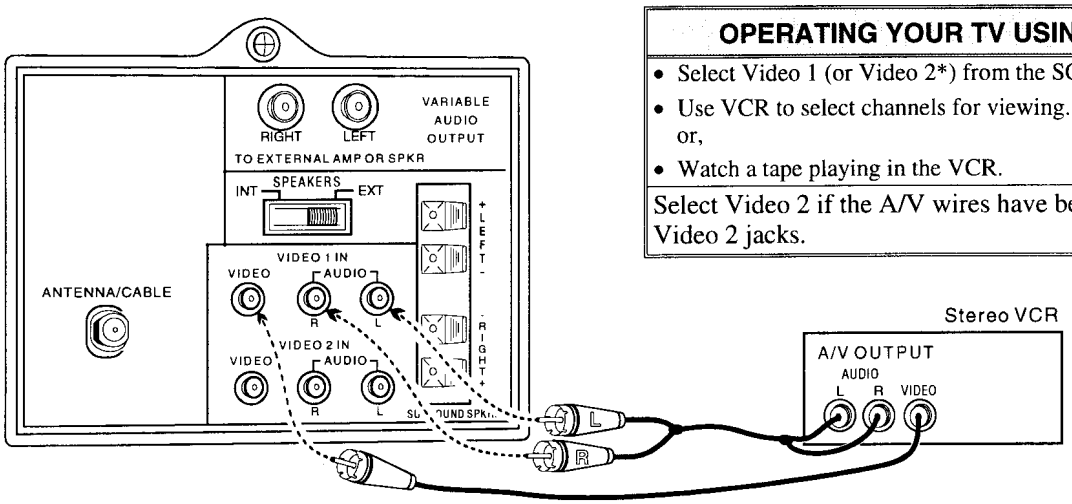


OPERATING YOUR TV		
VCR's TV/VCR* Switch Setting	**With Cable Box**	**Without Cable Box**
TV	• Select Antenna/Cable in SOURCE MENU. • Tune TV to VCR output channel (usually channel 3 or 4). • Use the cable box to select channels for viewing.	• Select Antenna/Cable in SOURCE MENU. • Use TV to select channels for viewing.
VCR	• Select Antenna/Cable in SOURCE MENU. • Tune VCR to cable box output channel (usually channel 3 or 4) . • Tune TV to VCR output channel.	• Select Antenna/Cable in SOURCE MENU. • Tune TV to VCR output channel (usually channel 3 or 4). • Use VCR to select channels for viewing.
* May be labeled TV/Video.		

CONNECTIONS FOR YOUR TV

STEREO VCR CONNECTION TO TV

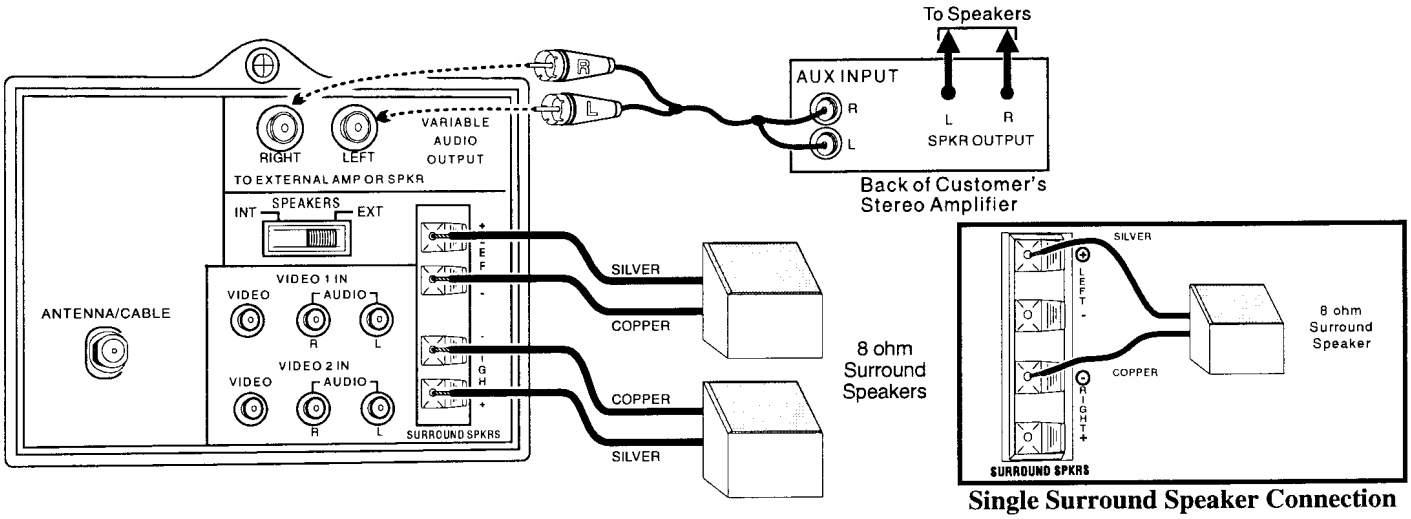
If you have a stereo VCR, you must make the A/V connections shown in order to hear stereo sound while playing a stereo tape.



OPERATING YOUR TV USING A/V JACKS
• Select Video 1 (or Video 2*) from the SOURCE MENU. • Use VCR to select channels for viewing. or, • Watch a tape playing in the VCR.
Select Video 2 if the A/V wires have been connected to the Video 2 jacks.

OPTIONAL AUDIO AMPLIFIER/SURROUND SOUND CONNECTIONS TO TV

If you wish to listen to the TV audio through an external amplifier or stereo system, or listen to surround sound audio, make the connections to the TV shown in the illustration below. (The Variable Audio Output jacks must not be connected directly to speakers.)

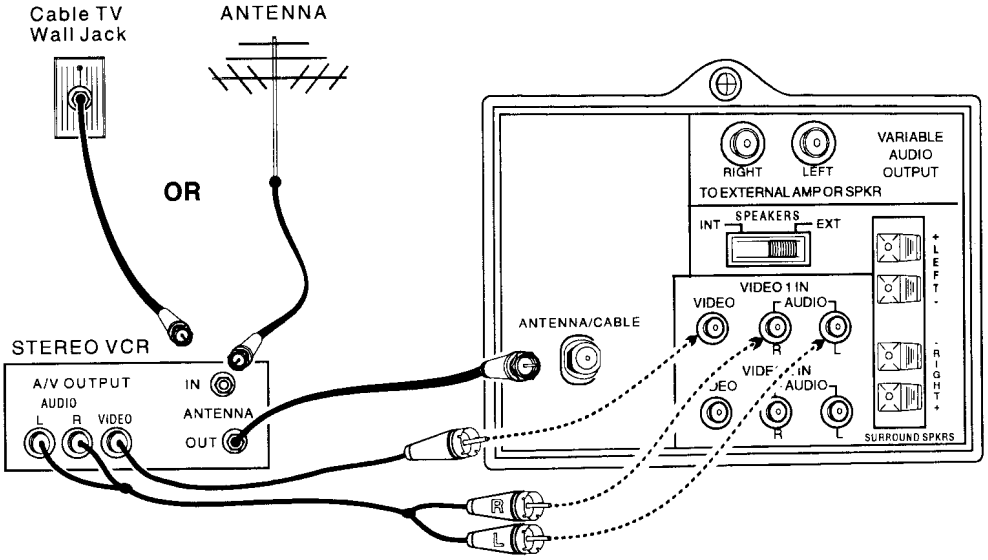


Single Surround Speaker Connection

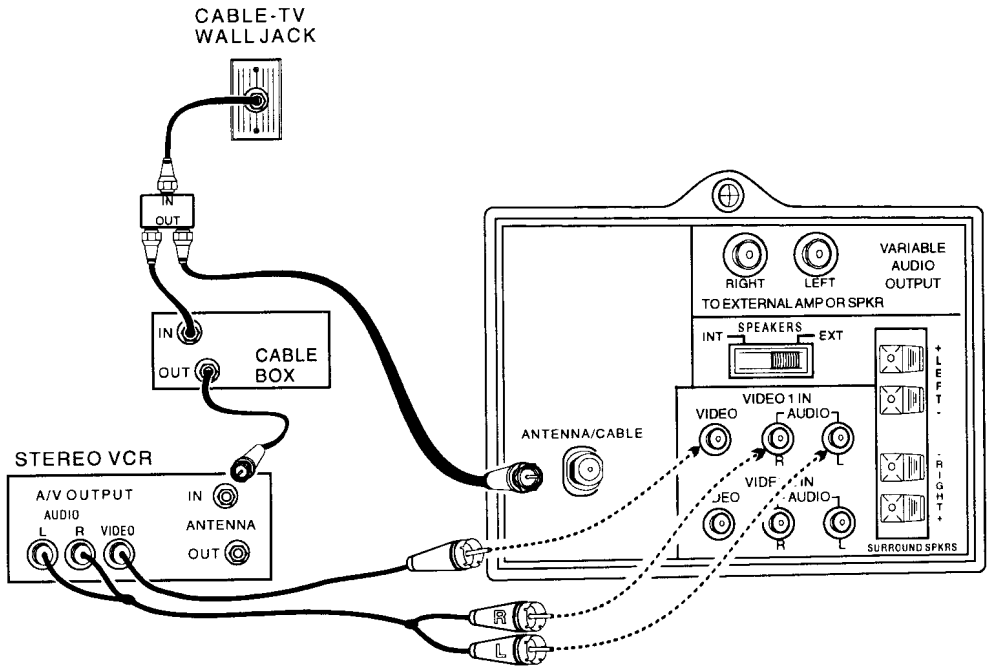
DIFFERENT WAYS TO LISTEN TO YOUR TV		
TV Speakers On	**TV Speakers Off**	**Surround Sound**
• SPEAKER EXT/INT switch in the **INT** (internal) position — TV speakers are ON. Sound is heard from both the TV's speakers and the external amplifier's speakers. • **Use TV's volume control** to raise and lower the level of sound being heard from both sets of speakers.	• SPEAKER EXT/INT switch in the **EXT** (external) position — TV speakers are OFF. Sound is only heard from the speakers connected to the external amplifier. • **Use TV's volume control** to raise and lower the level of sound being heard from the amplifier's speakers.	• Connect surround sound speakers as shown. The level of surround sound will vary, depending on the program being viewed. Note that not all programs have surround sound audio. • The SURROUND SPKR terminals are always active. The SPEAKERS EXT/INT switch **does not** affect the operation of surround sound speakers.

CONNECTIONS FOR USING PIP

The illustrations below show the two most common connections for using Picture-In-Picture (PIP). For further information on the actual use of PIP, refer to the "PIP OPERATION" section of this operating guide.



Antenna Connection For Use With PIP.



Cable-TV Connection For Use With PIP.

THE FIRST TIME YOU OPERATE YOUR TV

TYPICAL CONTROL PANEL

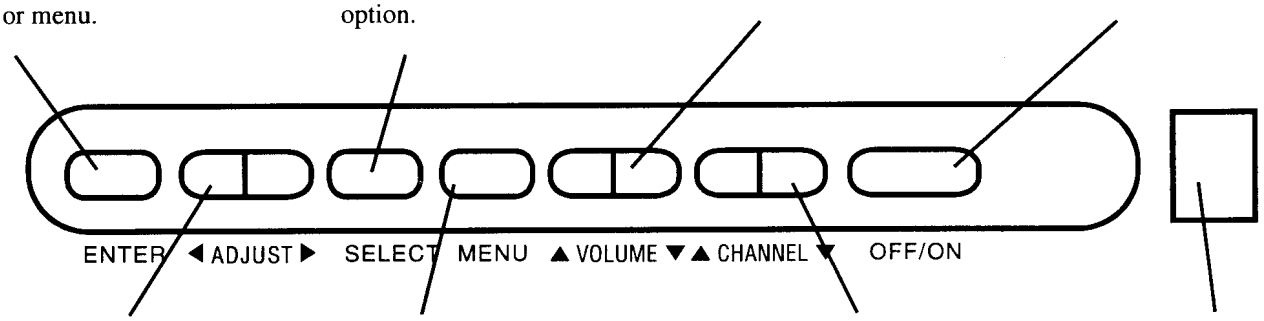
The control panel on your TV may differ from the one shown but its operation is the same.

ENTER (ENT)
Press to see the Channel/Time display, or to remove any on-screen display or menu.

SELECT (SEL)
Press during on-screen menu operations to select a menu option.

VOLUME (VOL) Up/Down
Press to increase or decrease the sound level.

OFF-ON
Press to turn TV power ON or OFF.



ADJUST (ADJ) Left/Right
Press during on-screen menu operation to see information/status display for selected option. Press again to adjust the selected menu option.

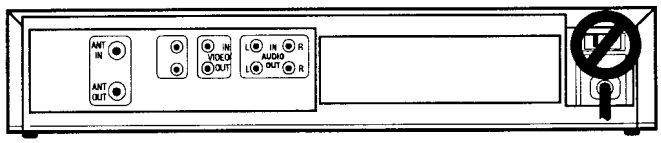
MENU
Press once to see a menu. Press repeatedly to sequence through other menus.

CHANNEL (CH) Up/Down
Press to select channels higher or lower than the current channel being viewed. To add or delete channels stored in the scanning sequence, see CH. ADD/DEL option.

Remote Window
Point the remote control towards this window to operate the TV.

STEP 1. CONNECT THE POWER

1. Plug your TV into an unswitched AC power source.
2. Turn the TV on by pressing OFF-ON.

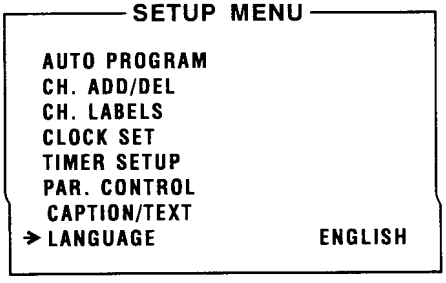


Do not plug TV into switched outlet on a VCR or cable-TV decoder

STEP 2. SELECT YOUR LANGUAGE

Select the language for the on-screen menus. Your options are English (ENGLISH), Spanish (ESPAÑOL) or French (FRANÇAIS). The word LANGUAGE always appears in English regardless of which language is chosen.

1. Press MENU repeatedly until the SETUP MENU is shown.
2. Press SELECT (SEL) Up or Down to highlight LANGUAGE then use ADJUST (ADJ) Left or Right to choose the desired language.
3. Press ENTER (ENT) to remove the menu.



Setup Menu with Language Highlighted

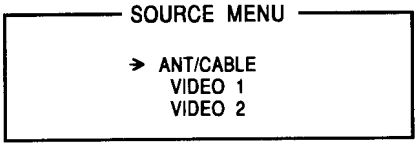
THE FIRST TIME YOU OPERATE YOUR TV

STEP 3. SELECT YOUR VIEWING SOURCE

A TV source refers to the equipment connected to the TV. You select the viewing source that supplies the picture and sound to your TV by means of the SOURCE MENU.

To Access SOURCE MENU

1. Press SOURCE on the remote control to view the SOURCE MENU.
2. Press SOURCE repeatedly until the ANT/CABLE source is highlighted.

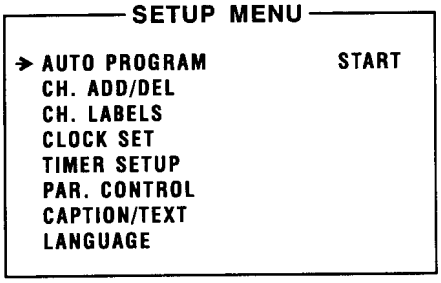


3. Press ENTER (ENT) to return to normal viewing.

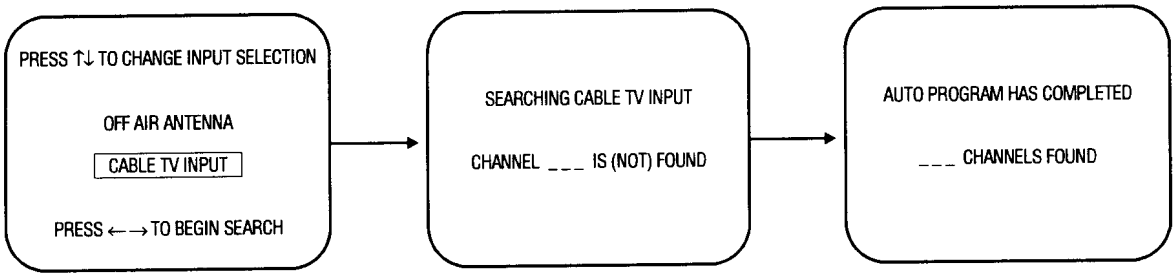
NOTE: ANT/CABLE source must be selected before using AUTO PROGRAM in order to correctly find available channels.

STEP 4. USE AUTO PROGRAM

When your TV is first powered up, AUTO PROGRAM will be selected in the Setup Menu. AUTO PROGRAM finds all available channels and stores them in the memory of the TV. **To start the AUTO PROGRAM procedure, press ADJUST Left/Right. Follow the instructions on the TV.**



Setup Menu with Auto Program Highlighted



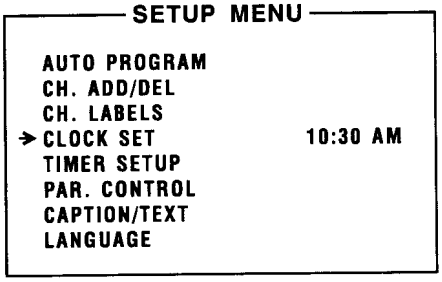
Press ↑↓ to select either OFF AIR ANTENNA or CABLE TV.

Press ← → to begin channel search.

Press ENTER after channel search is completed.

STEP 5. SET THE CLOCK

1. Press MENU repeatedly until the SETUP MENU is shown.
2. Press SELECT to highlight CLOCK SET.
3. Use numbered buttons on remote control to enter correct time and the TIMER button to select AM or PM. You can also use ADJUST Left/Right to advance the 24 hour clock.
4. Press ENTER to start the clock and remove the menu.



Setup Menu with Clock Set Highlighted

STEP 6. USE OTHER OPTIONS

You may want to consider using the following options:

- Delete undesirable channels or add additional channels: Refer to the CH. (Channel) ADD/DEL option for details.
- Label channels (such as ABC) that appear in the Channel/Time display: Refer to the CH. (Channel) LABELS option for details.
- Use the Parental Control feature to block the viewing of undesirable channels: Refer to the PAR. CONTROL option for details.

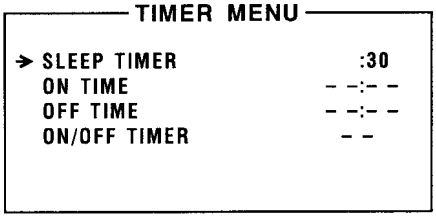
TIMER OPERATIONS

SLEEP TIMER

The SLEEP TIMER is a feature which allows you to program the TV to automatically turn itself off after a period from 15 minutes up to 4 hours.

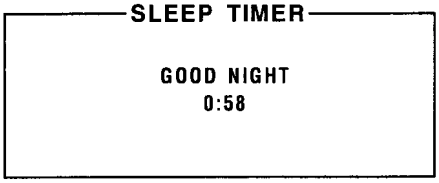
To Set SLEEP TIMER

1. Press MENU until the Setup Menu appears.
2. Select TIMER SETUP to view the Timer Menu.
3. With SLEEP TIMER highlighted, use ADJUST Left/Right to choose the period of time after which the TV will turn itself off.



Timer Set to Turn TV OFF in 30 Minutes

One minute before the TV turns off, the GOOD NIGHT display appears on the screen. At this time you have a choice of the following three actions.



"Good Night" Display Appears 60 Seconds Before Shut-Off

1. Do nothing. The GOOD NIGHT display remains on the screen. The TV will turn off in one minute.
2. Remove the GOOD NIGHT display by pressing ENTER. The TV will still turn off in one minute.
3. Delay the turn-off by resetting the timer with a new time period.

To Cancel the SLEEP TIMER

You can cancel the SLEEP TIMER by returning to the Timer Menu and setting it to OFF or by turning the TV off.

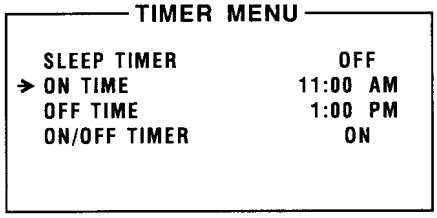
NOTES:

- Before the TIMER MENU can be used, you must set the time on the TV. See "THE FIRST TIME YOU OPERATE YOUR TV" or the "SETUP MENU" sections of the operating guide.
- The SLEEP TIMER can also be accessed directly by pressing the TIMER key on the remote control.

ON/OFF TIMER

The ON/OFF TIMER is a feature which allows you to program the TV to automatically turn itself on at a specific time then turn itself off at another time.

1. Press MENU until the Setup Menu appears.
2. Select TIMER SETUP to view the Timer Menu.
3. Select ON TIME and use the numbered buttons on your remote to enter a time for the TV to turn itself ON. Press TIMER on the remote to select AM or PM. You can also use ADJUST Left/Right to advance the time.
4. Select OFF TIME and use the numbered buttons on your remote to enter a time for the TV to turn itself OFF. Press TIMER on the remote to select AM or PM. You can also use ADJUST Left/Right to advance the time.
5. Select ON/OFF TIMER and use ADJUST on remote to turn TIMER ON or OFF.
6. Press ENTER to start the timer and return to normal viewing.



On/Off Timer Set to Turn TV ON at 11:00 am and OFF at 1:00 pm.

NOTES:

- A time must be set for either ON TIME or OFF TIME in order to turn TIMER ON.
- Before the TIMER MENU can be used, you must set the time on the TV. See "THE FIRST TIME YOU OPERATE YOUR TV" or the "SETUP MENU" sections of the operating guide.

REMOTE CONTROL MBR3455

INTRODUCTION

This multi-brand remote control operates the common features of most, but not all, models and brands of IR (infrared) controlled TVs, VCRs, cable converters, video disc players, and audio equipment. The remote may provide functions that are not available on your equipment, e.g., menu operations. Some functions of your particular equipment may not be controlled by this remote. In such cases, use the original remote control for your equipment.

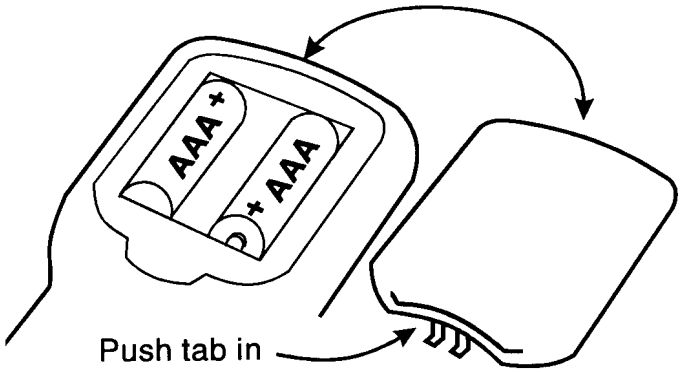
BATTERY INSTALLATION

Batteries are provided , but they must be installed before using the remote control. When it no longer functions normally, or when it loses memory, replace the batteries with two high-quality, alkaline, size AAA batteries. Match plus with plus (+ with +), minus with minus (- with -), as shown in the battery compartment.

Unless your equipment responds to the factory preset codes commonly used for Zenith products, i.e.., 101 for TV, 201 for VCR, 353 for CABLE, and 401 for AUX., you will need to program the remote control with the codes for your particular equipment.

NOTES:

- Do not to place heavy objects on top of the remote control keys. Prolonged unintentional operation of the remote shortens battery life.
- Remove the batteries if the remote control will not be used for a month or more. **Battery leakage can permanently damage the remote, for which Zenith is not responsible.**



CHOOSING OPERATING MODE

To control your TV, VCR, cable box, or auxiliary equipment with this remote, you must first choose the mode of operation. Press the desired mode key for **TV**, **VCR**, **CABLE** or **AUX**.

Some keys on the remote will always operate a particular product function. For example, **VOLUME** controls the TV sound level, and **PLAY** controls the VCR play function.

INDICATOR LIGHT

Illuminates whenever remote sends signal.

OPERATING MODE KEYS

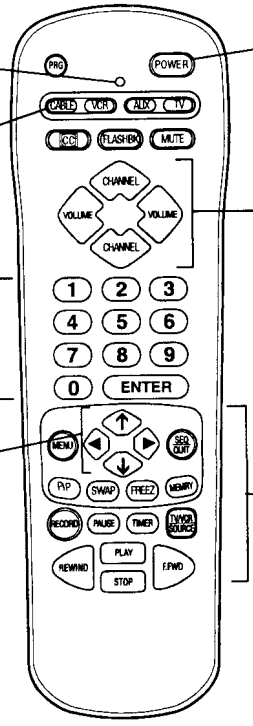
Selects equipment to be controlled.

NUMBER KEY PAD

Provides direct channel selection and other functions.

LOWER ARROW KEY PAD

These keys typically perform on-screen menu selection and adjustment.



POWER KEY

Switches power ON or OFF to selected equipment.

UPPER ARROW KEY PAD

These keys typically control Channel changing and Volume operations.

SPECIAL FUNCTION KEYS

Activates special features on some products.

REMOTE CONTROL MBR3455

TV OPERATIONS

These descriptions apply to functions and operations of your TV. First, press the **TV** button on the remote control to select the TV mode of operation.

FLASHBK (Flashback)
Return to the previous TV channel selected for viewing.

CHANNEL (Up Arrow)
Tunes to the next (higher) channel as programmed into TV memory. Press and hold to repeat.

CC (Closed Captioning)
Displays the closed caption menu. Press again to move the highlight bar within the menu and select your choice.

VOLUME (Left Arrow)
Decreases the TV's sound level.

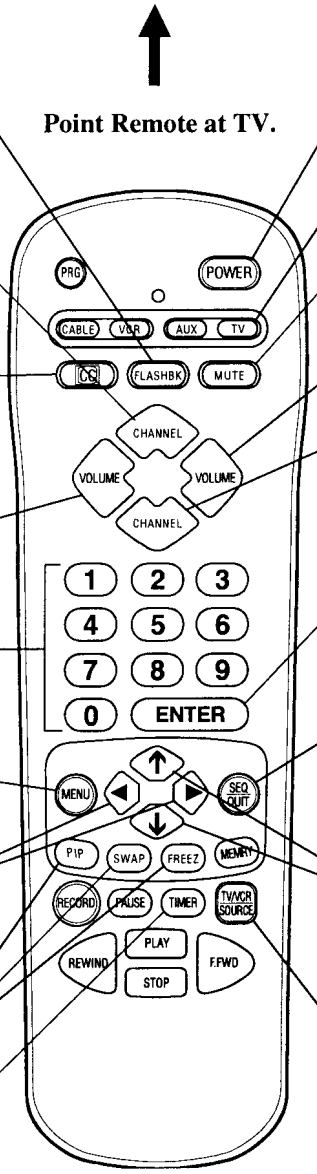
NUMBER KEY PAD
Select a number for direct channel tuning.

MENU
Displays menus for TV options. Press repeatedly to view other menus.

LEFT and RIGHT ARROW KEYS
Used to respond when an on-screen menu needs an ADJUST response. Press either key to sequence through available choices.

PIP, SWAP, and FREEZ KEYS
See PIP (Picture-in-Picture) section for information.

TIMER
Displays the SLEEP TIMER menu. Press repeatedly to set desired TV shut-off time.



TV Operations

POWER
Turns TV ON or OFF.

TV
Selects TV mode of operation.

MUTE
Turns off sound while the picture remains. Press again to restore the sound.

VOLUME (Right Arrow)
Increases the TV's sound level.

CHANNEL (Down Arrow)
Tunes to next (lower) channel programmed into TV memory. Press and hold to repeat.

ENTER
Press to see the Channel/Time display. Also used to enter channel digits. Press to remove any on-screen menu.

SEQ/QUIT
Activates/deactivates the Spatial Equalization (SEQ) audio enhancement for stereo broadcasts on TV's equipped with SEQ.

UP and DOWN ARROW KEYS
Used to respond when an on-screen menu needs a SELECT response. Press to move the highlight bar within the menu.

TV/VCR SOURCE
Displays the menu of TV sources for some TV's. Press **TV/VCR SOURCE** repeatedly to step through the source selections. On some TV's, press **TV/VCR SOURCE** to select the AUX (Auxiliary) channel.

NOTE: Keys dedicated to VCR functions may be used to operate your VCR while the remote is in TV mode.

REMOTE CONTROL MBR3455

OPERATIONAL MODES FOR ZENITH PRODUCTS USING FACTORY PRESET CODES

Pushbutton or Key Label	TV Mode Zenith Code 101	VCR Mode Zenith Code 201	Cable Mode Zenith Code 353	AUX Mode Zenith Code 401
POWER	TV Power On/Off	VCR Power On/Off	Cable Power On/Off	AUX Power On/Off
CABLE	Selects Cable Mode	Selects Cable Mode	Selects Cable Mode	Selects Cable Mode
VCR	Selects VCR Mode	Selects VCR Mode	Selects VCR Mode	Selects VCR Mode
AUX	Selects AUX Mode	Selects AUX Mode	Selects AUX Mode	Selects AUX Mode
TV	Selects TV Mode	Selects TV Mode	Selects TV Mode	Selects TV Mode
CC	TV Closed Captions	VCR AM/PM	CABLE FC (Favorite Ch.)	AUX Audio
FLASHBK	TV Flashback	VCR Flashback	CABLE Flashback	AUX Frame/Time
MUTE	TV Mute	TV Mute	TV Mute (See Note 1)	TV Mute
CHANNEL UP	TV Channel Up	VCR Channel Up	CABLE Channel Up	AUX Skip >>
CHANNEL DN	TV Channel Dn	VCR Channel Dn	CABLE Channel Dn	AUX Skip <<
VOLUME RIGHT	TV Volume Up	TV Volume Up	TV Volume Up (See Note 1)	TV Volume Up
VOLUME LEFT	TV Volume Dn	TV Volume Dn	TV Volume Dn (See Note 1)	TV Volume Dn
1	TV Digit 1	VCR Digit 1	CABLE Digit 1	AUX Digit 1
2	TV Digit 2	VCR Digit 2	CABLE Digit 2	AUX Digit 2
3	TV Digit 3	VCR Digit 3	CABLE Digit 3	AUX Digit 3
4	TV Digit 4	VCR Digit 4	CABLE Digit 4	AUX Digit 4
5	TV Digit 5	VCR Digit 5	CABLE Digit 5	AUX Digit 5
6	TV Digit 6	VCR Digit 6	CABLE Digit 6	AUX Digit 6
7	TV Digit 7	VCR Digit 7	CABLE Digit 7	AUX Digit 7
8	TV Digit 8	VCR Digit 8	CABLE Digit 8	AUX Digit 8
9	TV Digit 9	VCR Digit 9	CABLE Digit 9	AUX Digit 9
0	TV Digit 0	VCR Digit 0	CABLE Digit 0	AUX Digit 0
ENTER	TV Enter	VCR Enter	CABLE Enter	AUX Display
MENU	TV Menu	VCR Menu	CABLE Menu	AUX Program
UP ARROW	TV Select Up	VCR Select Up	CABLE Up Arrow	AUX Part
DOWN ARROW	TV Select Dn	VCR Select Dn	CABLE Down Arrow	AUX Random
LEFT ARROW	TV Adjust Left	VCR Adjust Left	CABLE Left Arrow	AUX x3 FAST <
RIGHT ARROW	TV Adjust Right	VCR Adjust Right	CABLE Right Arrow	AUX x3 FAST >
SEQ/QUIT	TV SEQ Sound	VCR Quit	CABLE Quit	AUX Clear
PIP/A	TV PIP	VCR VCR+	CABLE Day Up	AUX Repeat-Side
SWAP/B	TV PIP Swap	VCR Channel Map	CABLE Day Down	AUX Repeat-A-B
FREEZ/C	TV PIP Freeze	VCR Search	CABLE Pg Up/★	AUX Repeat-Chap
MEMRY/D	No Function	VCR Memory	CABLE Pg Dn/#	AUX Memory
TIMER	TV Timer	VCR Timer	CABLE Timer	AUX Still
TV/VCR/SOURCE	TV Source	VCR TV/VCR Tuner	CABLE Info	AUX Tv/Disc
RECORD	VCR Record	VCR Record	CABLE Buy	AUX Edit
PAUSE	VCR Pause	VCR Pause	CABLE Guide	AUX Pause
REWIND	VCR Rewind	VCR Rewind	VCR Rewind	AUX Scan <<
PLAY	VCR Play	VCR Play	VCR Play	AUX Play
STOP	VCR Stop	VCR Stop	VCR Stop	AUX Stop/Eject
FFWD	VCR Fast Forward	VCR Fast Forward	VCR Fast Forward	AUX Scan >>

Reference: 124-212-03 and μP 221-952A

NOTES:

1. **Can be overwritten with Cable Vol/ Mute when 399 is entered.**

PROGRAMMING YOUR REMOTE

If you are using Zenith products, the remote is programmed for the most commonly used codes. For other brands — or if your remote fails to control your Zenith products — you will have to program the remote.

Follow these steps for each product you are using:

1. Look up the three-digit code for your brand (such as Zenith) and type of equipment (such as VCR) in the code table provided.
2. Press and hold **PRG** with a small blunt object until the indicator lights (about three seconds).
3. Press **TV, VCR, CABLE,** or **AUX** to select the product you want your remote to control. (Use CABLE or AUX, to program your remote for a second TV or VCR. Use AUX, to program your remote for a video disc player or audio equipment.)
4. Key in the three-digit code for your equipment, then press **ENTER**. The indicator light should flash, then turn off to indicate that the code was accepted. If the indicator stays on, repeat steps 3 and 4 or try using a different code.
5. Write the code that operates your equipment, on the label inside the battery compartment for future reference.

To erase all code programming and return to the factory preset codes, key in code **911** when programming the remote.

NOTES:

- If no key on your remote is pressed within 60 seconds, the programming process stops, and you will have to start again.
- You may cancel programming at any time by pressing **PRG**.

SPECIAL FEATURES

AUX+1, AUX+2 and AUX+3 Capability

Your remote can control up to seven electronic components. If you have programmed the remote for four components using the **TV, VCR, CABLE** and **AUX** keys, you may also program it for up to three additional components (**AUX+1, AUX+2, AUX+3**) by **HOLDING** the **AUX** key and pressing the **1, 2** or **3** key during programming. Once programmed, **HOLD** down the **AUX** key and press **1, 2** or **3**, to access the additional **AUX +1, 2** or **3** mode.

Cable/Converter Volume (Code 399)

You may use your remote to control cable/converter volume and muting if available on your equipment. First program your remote with the brand code for your cable device using the **CABLE** or **AUX** key. Then repeat the programming steps, again using the **CABLE** or **AUX** key, **but key in code 399** instead of a brand code.

To restore TV volume/mute to the **CABLE** or **AUX** mode, simply re-enter your cable/converter code number into that mode.

Amplifier Volume Override (Code 499)

You may use your remote to override your TV, VCR or video disk player's volume functions with your amplifier's volume and muting. First, program your remote with the brand code for the component for which you want amplifier volume override, using the key for that product: TV, VCR or AUX. Then, program your remote with the brand code for your amplifier. Finally, repeat the programming steps, using the key for the component you wish to control (TV, VCR, or AUX), **but key in code 499** instead of a brand code.

To restore normal volume and muting control to your TV, VCR or laser disc player, program the remote again for that component.

NOTE:

- CD and tape players will automatically select amplifier volume and mute.

AUTO FIND OPTION

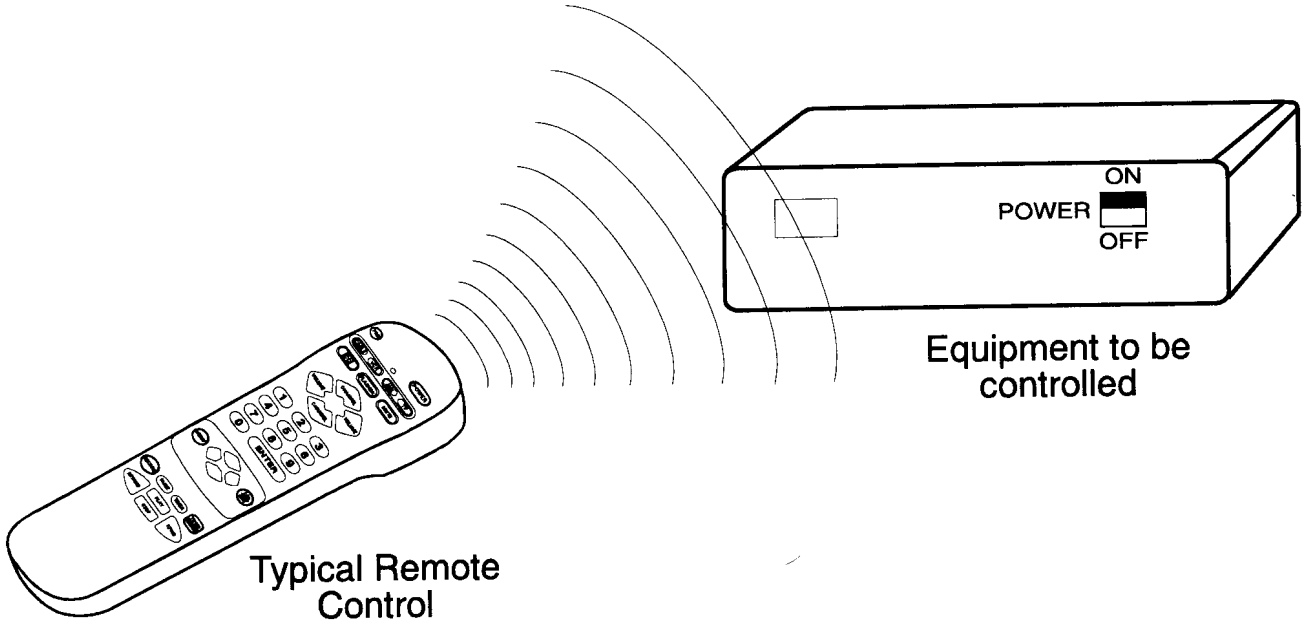
If you have tried all the codes listed for your brand and type of product in the code table, and none of those codes operate your equipment, you can use Auto Find to search for the code you need.

Follow these steps for each product you are using:

1. Turn the product ON and aim the remote toward it.
2. Press and hold **PRG** with a small blunt object until the indicator lights (about three seconds).
3. Press the mode key on the remote for the product you want to control: **TV, VCR, CABLE,** or **AUX**.
4. Key in "**000**", then press **ENTER** within two seconds. When the indicator light flashes three times and remains lit, Auto Find is active.
5. Press and hold POWER, then release it, repeating this action about once a second until the product turns OFF.
6. Press **ENTER** immediately to save the code. If your remote fails to operate the functions you use most often, you can re-enter Auto Find and search for a better code.

NOTES:

- The indicator light should flash OFF when you press **POWER** and back ON when you release it. If the indicator light stays on when you press **POWER**, Auto Find has tried all available codes. If you finish Auto Find and the product you want to control has not turned off, your remote cannot control that product.
- Pressing **PRG** at any time during the use of Auto Find will cancel Auto Find, and you will have to start again.



OPERATING CODES BY BRAND NAME

TVS

Admiral	116, 121, 130, 133
Adventura TV/VCR	154
Akai	104
Amark	103, 146
AOC	104
Bell & Howell	121
Broksonic	131, 136
Candle	139
Centurion	119
Citizen	121, 139
Contec	141
Coronado	103
Crown	103
Curtis Mathes	116, 119, 121
Daewoo	149, 159
Daewoo TV/VCR	148
Daytron	119
Elektra	121
Emerson	103,104,123,124, 131, 136, 145
Emerson TV/VCR	158
Fisher	109, 118
Funai TV/VCR	154
General Electric	106, 107, 114, 116, 117, 161
Goldstar	103, 104, 119, 147
Goldstar TV/VCR	153
Hitachi	102, 103, 129, 163
J.C. Penney	104, 110, 114, 117, 119
JVC	125, 132, 164
KMC	103
KTV	103, 104, 138
Kurazai	121
Lodgenet	121
Logik	121
LXI	118, 119, 133, 137
Magnavox	103, 112, 113, 117, 119, 127, 128, 139, 165
Magnavox TV/VCR	173
Majestic	121
Marantz	104, 120, 155
Megatron	146
Memorex	121
MGA/ Mitsubishi	104, 119, 120, 130, 140, 155
Montgomery Ward	103, 104, 105, 113, 114, 119, 121, 130, 133
NEC	104, 119
Panasonic	106, 107, 160, 166
Panasonic TV/VCR	174
Philco	103, 104, 112, 113, 139
Philips	112, 113
Pioneer	135
Portland	103
ProScan	116, 157, 162, 167
Quasar	106, 107
RCA	104, 116, 126, 157, 161,162,167,168
Realistic	105, 123, 124
Sampo	119
Samsung	103, 119, 134, 141
Sanyo	108, 109, 118
Scott	119, 124
Sears	103, 108, 109,110, 111, 118, 134
Sharp	103, 105, 122, 133, 137, 156, 169
Signature 2000	103, 104, 105, 113, 114, 119, 121, 130, 133
Sony	115, 143, 151, 170
Soundesign	139
Sylvania	112, 113, 117, 119, 127, 128, 139
Symphonic TV/VCR	154
Tatung	106
Teknika	103, 112, 121, 124, 139
Telerent	103, 121
Toshiba	110, 111, 134, 171
XR1000	121
Yorx	119
Zenith	101, 149, 175
Zenith TV/VCR	153, 154, 172

VCRS

Admiral	208, 261
Adventura	231
Aiwa	231
Akai	223, 238, 241
Audio Dynamics	202, 218
Bell & Howell	206, 247
Broksonic	221, 226, 250, 255
Canon	214
Citizen	209
Craig	212
Curtis Mathes	214, 259
Daewoo	244, 246, 248, 254
Daytron	236, 246
DBX	202, 218
Emerson	203, 221, 223, 226, 233, 235, 243, 250
Fisher	211, 212, 213, 247
Funai	231
General Electric	214, 216, 220
Goldstar	209
Go Video	256, 262, 263
Hitachi	215, 257
Instant Replay	214, 227
J.C. Penney	214, 215, 218, 227
JVC	202, 225, 258
Kenwood	202
Logik	239
LXI	209, 231
Magnavox	207, 214, 231
Marantz	207, 218
Marta	209
Memorex	206, 212, 214, 231
Mitsubishi	204, 222, 252, 264
Montgomery Ward	208, 214, 216, 219, 231, 249
Multi Tech	239
NEC	202, 218
Orion	250
Panasonic	214, 251, 259
Pentax	215
Philco	207, 214
Philips	207, 214, 227
Pioneer	210, 215
Portland	246
Pro Scan	216, 260
Quasar	214, 259
RCA	215, 216, 220, 227, 240, 242, 260
Realistic	206, 208, 212, 214, 231
Samsung	220, 230
Sansui	239
Sanyo	206, 212, 247
Scott	204, 205, 233, 243
Sears	206, 209,211, 212, 215
Sharp	208, 261
Shintom	239
Signature 2000	208, 214, 216, 219, 231, 249
Sony	217, 232, 237
Sylvania	207, 214, 227
Symphonic	231
Tashiko	209
Tatung	202
Teac	202, 231
Teknika	234
Toshiba	205, 215
XR1000	239
Vector Research	204, 218
Yamaha	202, 218
Zenith	201, 224, 225, 229, 237

CABLE/SATELLITE

Allegro	358, 362
Allegro A/B Switch	361
Gemini	305, 331, 338
General Electric	367
General Instrument	305, 306
Hamlin	302, 303, 345, 365, 366
Jerrold	304, 307, 308, 309, 310, 318, 360, 363
Kale Vision	335
Macom	314, 321
Magnavox	334
NSC	335, 339, 368, 369, 370
Oak	311, 332, 342
Panasonic	313, 320
Paragon	333
Philips	347, 350, 352, 354, 355
Pioneer	315, 343
RCA DSS	373
Regency	329
Samsung	335
Scientific Atlanta	316, 323, 336, 364
Sprucer	313
Standard Comp	335
Texscan	339, 356, 371
Tocom	317, 318, 346
Unika	348, 362
United Satellite	344
Universal	358, 362
Vid Tech	340
Video Way	349
Viewstar	354, 355, 372
Zenith	301, 353, 374
Zenith Satellite	312, 328, 330, 351

VIDEO DISK PLAYERS

Pioneer	402, 403
Sanyo	401
Sony	404
Zenith	401

AUDIO CD PLAYERS

Akai	409, 424
Crown	410
Denon	411
Fisher	412, 438
Goldstar	460
Harman/Kardon	413
JVC	415
Kenwood	412, 416, 417, 441
Magnavox	421, 422, 433, 434
Mitsubishi	423, 424
NAD	425, 426, 447
Nakamichi	427, 428
NEC	429
Onkyo	430
Panasonic	431, 432
Philips	421, 433, 434
Pioneer	431, 435
Quasar	432
Radio Shack	431, 436, 439, 440, 441
RCA	437
Sanyo	438, 439
Scott	440
Sharp	441, 442
Sony	443, 444, 445
Soundesign	461, 498, 501, 502
Sylvania	433
Teac	446
Technics	432, 459
Toshiba	447
Yamaha	448
Zenith	460, 461, 498, 501, 502

AUDIO TAPE DECKS

Denon	455
Harman/Kardon	456
JVC	457
Kenwood	450
Onkyo	458
Philips DCC	454
Pioneer	451, 478
Sony	452
Technics	454, 497
Yamaha	453

AUDIO TUNERS AND AMPLIFIERS

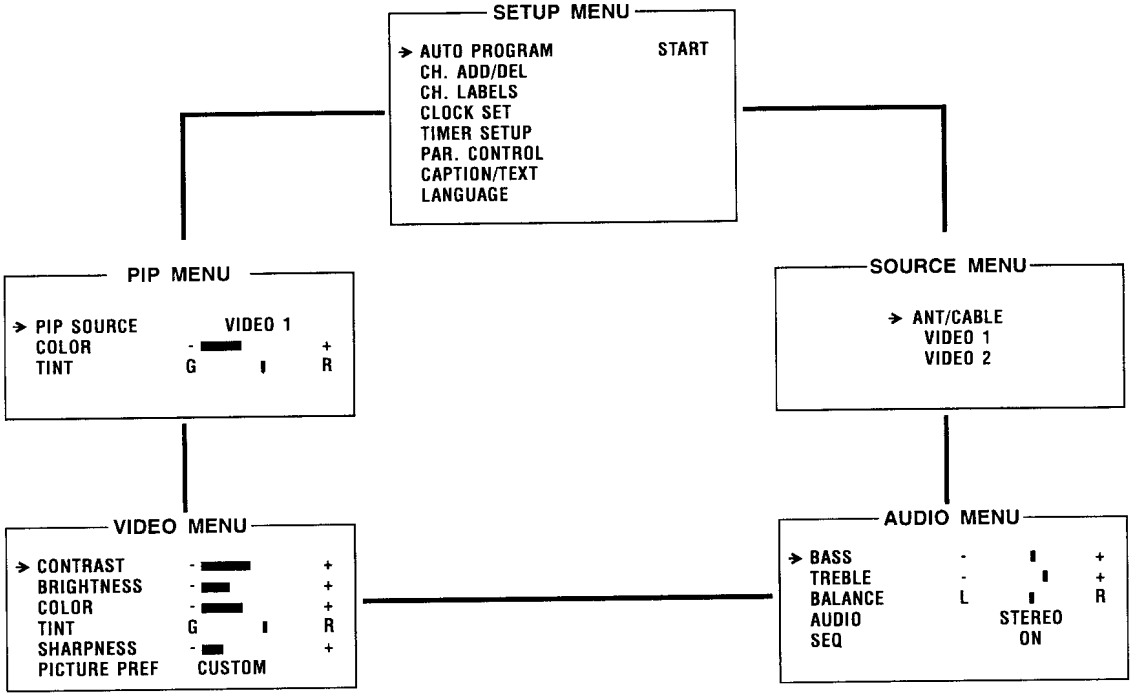
Denon	462, 463
Fisher	464
Goldstar	460
Harman/ Kardon	465
JVC	466
Kenwood	468, 469
Marantz	472, 503
Onkyo	473
Philips	475, 476
Pioneer	477, 478, 479
Radio Shack	487, 488
Realistic	480
Sanyo	481
Scott	482
Sharp	483
Sherwood	487, 488
Sony	489, 490, 491, 492
Soundesign	461, 498, 501, 502
Teac	494, 495
Technics	497
Yamaha	496
Zenith	460, 461, 498, 501, 502

Ref: 124-212-03 and µP 221-952A

QUICK REFERENCE TO ON-SCREEN MENUS

AVAILABLE MENUS

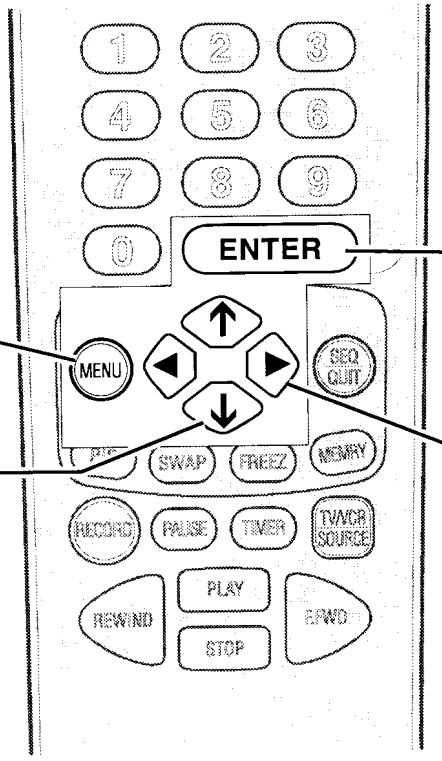
Your TV is **menu** operated. In other words, adjustments that can be made to the TV appear on the screen in a list of choices you can make.



BASIC MENU OPERATION

1. Press MENU repeatedly to choose between available menus.

2. Press SELECT (SEL) Up/Down repeatedly until the desired option is highlighted.

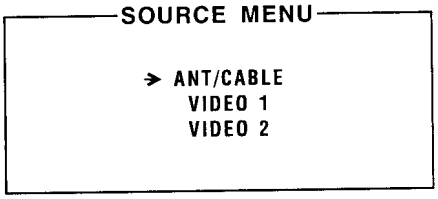


Typical Remote Control

4. Press ENTER to remove menus or wait a few seconds and the TV will return automatically to normal operation.

3. Press ADJUST Left/Right to adjust an option.

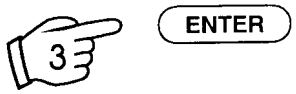
SOURCE MENU



MENU OPERATION

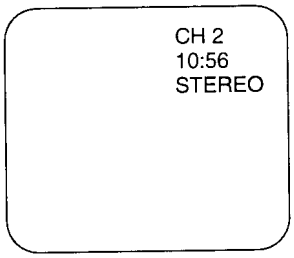
Press SOURCE to view the SOURCE MENU.

Press SOURCE repeatedly until the desired input Source is selected.

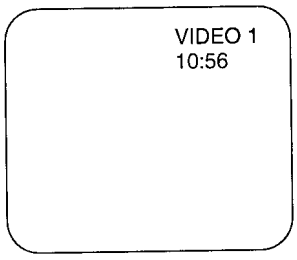


Press ENTER or wait a few seconds for the TV to return to normal operation.

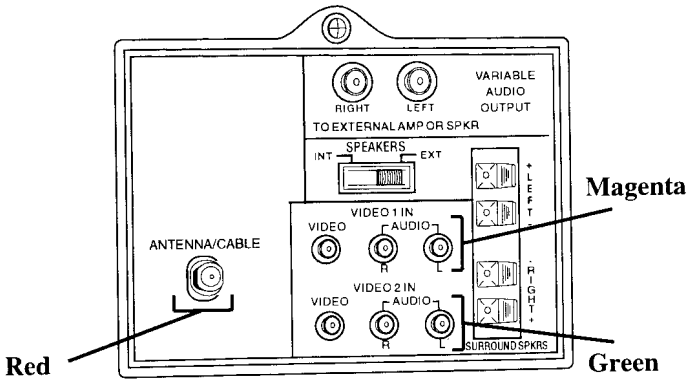
ANT/CABLE	Routes the antenna or cable-TV source to the TV for viewing. You see program material from whichever signal source is connected to the ANTENNA/CABLE jack. (If the signal is from a VCR or a cable box, tune the TV to either channel 3 or 4.)
VIDEO 1	Routes the audio and video from an A/V source (such as a VCR or a video disc player) to the TV for viewing. The source must be connected to the corresponding VIDEO 1 IN jacks.
VIDEO 2	Routes the audio and video from an A/V source (such as a VCR or a video disc player) to the TV for viewing. The source must be connected to the corresponding VIDEO 2 IN jacks.



Channel/Time Display for Antenna or Cable Source Shows Channel Number

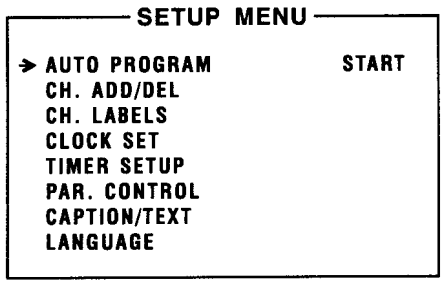


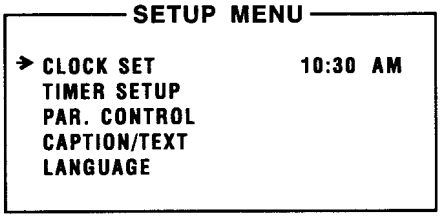
Channel/Time Display for A/V Source Shows VIDEO 1 or VIDEO 2



Connection Center on Back of TV

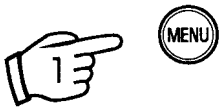
SETUP MENU



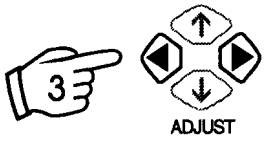


While Video 1 or Video 2 Source is Chosen

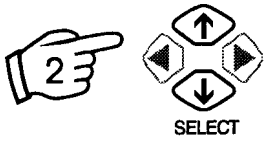
MENU OPERATION



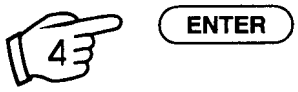
Press MENU repeatedly until the SETUP MENU is shown.



Press ADJUST Left/Right to adjust the selected option.



Press SELECT (SEL) up/down until the desired option is either highlighted or selected.



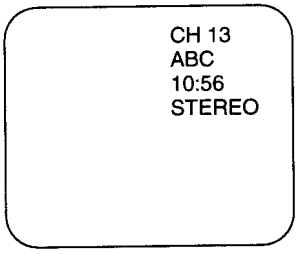
Press ENTER or wait a few seconds for the TV to return to normal operation.

AUTO PROGRAM	Finds all active channels and stores them in the TV's memory for use by CHANNEL (CH) up/down.
CH. (CHANNEL) ADD/DEL	Edits the channels found by AUTO PROGRAM. Use numbered buttons or CHANNEL (CH) up/down to select the channel to be edited. Press ADJUST (ADJ) Left/Right to **ADD** or **DEL** (Delete) channels to create your own list of favorite channels.
CH. (CHANNEL) LABELS	Assigns a network/station label, name or call letters to specified channels. For example, if you choose the label **ABC** for channel 13, then **ABC** will appear in the Channel/Time display whenever channel 13 is selected. See the information following this chart for more details.
CLOCK SET	Sets the clock in the TV to the correct time. Press ADJUST (ADJ) Left/Right to advance the 24-hour clock, or use numbered buttons on the remote to enter time. Press ENTER (ENT) to start the clock.
TIMER SETUP	Sets the TV's SLEEP TIMER and ON/OFF TIMER features. Refer to the TIMER FUNCTIONS section.
PAR. (PARENTAL) CONTROL	Use this feature to block viewing of any undesirable channels, including the VIDEO 1 and VIDEO 2 sources. See the information following this chart for more details.
CAPTION/TEXT	Displays closed captioning or informational text when available on the selected channel. Options are: **OFF, CAPTION 1, CAPTION 2, CAPTION 3, CAPTION 4, TEXT 1, TEXT 2, TEXT 3,** or **TEXT 4**. See the information following this chart for more details.
LANGUAGE	Selects the language used for on-screen menus. Languages available include: **English (ENGLISH), Spanish (ESPAÑOL)** or **French (FRANÇAIS).**

continued on next page

USING CHANNEL LABELS

1. Select a channel by pressing the number buttons or the CHANNEL Up/Down key.
2. Press ADJUST Left/Right to sequence through the available choices until the desired label appears.



Channel/Time Display with Label

A&E	ABC	ACTS	ADC	AMC	BET
BRAV	CA	CBC	CBN	CBS	CMTV
CNBC	CNN	COM	CSPN	CTN	CTV
DIS	DISC	E!	ENC	ESPN	ET
EWTN	FAM	FNN	FOX	GALA	HBO
HN	HSE	HSN	IC	INSP	LIFE
MAX	MEU	MMT	MTV	NBC	NICK
NOS	PBS	PLAY	PTL	QVC	RDS
REQ	SC	SCFI	SHOW	SIN	TBS
TBN	TELE	TLC	TMC	TNN	TNT
TRAV	TSN	TVA	TWC	USA	VC
VCR	VH1	VISN	VJN	WGN	WTBS
WWOR	YTV	— — — —			

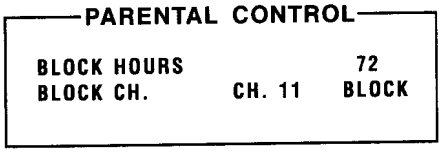
Available Channel Labels

NOTE:

- To remove an assigned channel label, select the four dashes.

USING PARENTAL CONTROL

1. Select PAR. CONTROL and press ADJUST Left/Right to view the PARENTAL CONTROL Menu.
2. Select BLOCK CH. (CHANNELS) and, using the CHANNEL Up/Down key, toggle to each channel you wish to "block." (Or, press the Source Key to block Video 1 or Video 2.) For each channel (or source) selected, press ADJUST Left/Right to choose BLOCK.
3. When all desired channels are set to BLOCK, press SELECT Up/Down to select BLOCK HOURS.



Parental Control Set to Block Channels for 72 Hours

4. Using ADJUST Left/Right, choose the period of time you want the Parental Control to be active. Your options are OFF, 12, 24, 48 or 72 hours.
5. Press ENTER to exit the Parental Control option, and enter any 4-number password when prompted to do so.

   REMEMBER THIS NUMBER! TO RE-ACCESS PARENTAL CONTROL WHILE IT IS ACTIVATED, YOU MUST ENTER THIS NUMBER. Otherwise, simply allow the specified period of time to elapse.

NOTE:

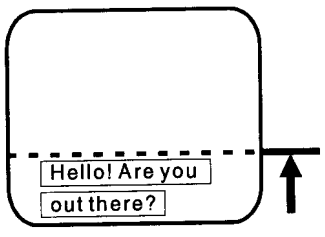
- Do not unplug the TV in an attempt to deactivate the Parental Control. This only resets Parental Control to the closest, greater time period.

USING CAPTION/TEXT

Press ADJUST Left/Right to select desired mode of operation. While in the Setup Menu, nine different options are available and include: OFF, CAPTION 1, CAPTION 2, CAPTION 3, CAPTION 4, TEXT 1, TEXT 2, TEXT 3, or TEXT 4.

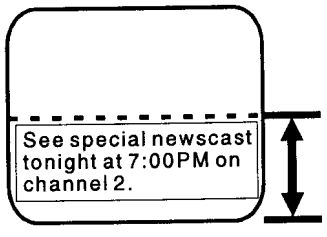
Pressing the CC button on your remote immediately accesses a captions menu that provides the options OFF, CAPTION 1, CAPTION 2, CAPTION 3 and CAPTION 4. Press the CC button repeatedly to choose an option in this menu.

At present, very few TV programs or video tapes offer text captioning for any option other than **CAPTION 1**. Therefore, **CAPTION 1** is the only recommended choice, unless you know that a specific program is providing captioning using one of the other selections.



Typical Captions Display

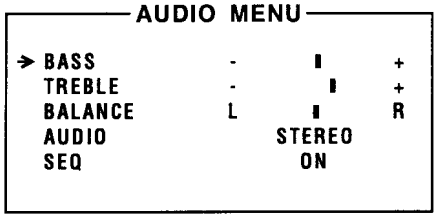
Captions may be shown anywhere on the screen.

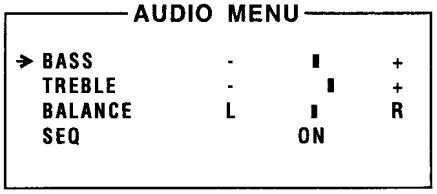


Typical Text Display

Fixed size text window fills lower half of screen. May be all black when no information is shown.

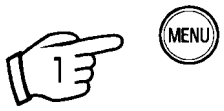
AUDIO MENU



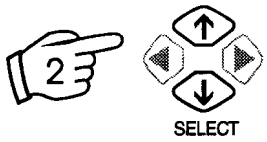


While Video 1 or Video 2 Source is Chosen

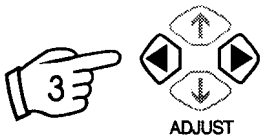
MENU OPERATION



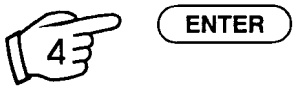
Press MENU repeatedly until the AUDIO MENU is shown.



Press SELECT Up/Down until the desired option is either highlighted or selected.

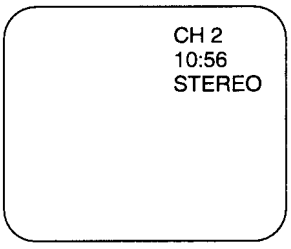


Press ADJUST Left/Right to adjust to the desired option.



Press ENTER or wait a few seconds for the TV to return to normal operation.

BASS	Adjusts the BASS (low-frequency) level.
TREBLE	Adjusts the TREBLE (high-frequency) level.
BALANCE	Adjusts the balance of sound between the two speakers.
AUDIO (AUDIO options are not available while a video source is chosen. The audio signal being received from a video source is assumed to be stereo.)	Allows you to select STEREO, MONO or 2ND AUDIO/SAP speaker operation. See information below this chart for more details. STEREO: Directs the sound to the Left and Right speakers as supplied by the program source (broadcast TV, VCR, etc.) MONO: Directs the same sound to both Left and Right speakers, even if the program being received is in stereo. 2ND AUDIO/SAP: Directs the sound for the Second Audio Program (second language) to both the Left and Right speakers. SAP sound is always monaural.
SEQ (Spatial Equalization)	Produces a spacious and more tonal sound. SEQ is only available while a stereo signal is being received and processed by the TV.



Audio Mode Shown in Channel/Time Display

STEREO is selected and a stereo signal is being received. You will hear stereo sound.

TO USE AUDIO OPTIONS

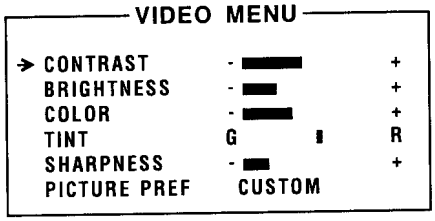
We recommend that you use the STEREO option. The TV switches automatically between the STEREO and MONO modes depending on the signal being received.

If you prefer SAP, use the 2ND AUDIO/SAP option. On those stations which broadcast two audio portions, you hear the SAP (usually a second language). When the SAP broadcast ends, the TV switches automatically between STEREO and MONO modes. The TV switches back to 2ND AUDIO/SAP when the SAP broadcast resumes.

NOTE:

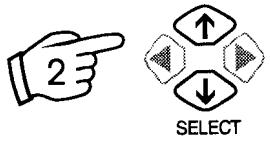
- All adjustments on the AUDIO MENU are optional. You do not have to use these features in order to use your TV.

VIDEO MENU

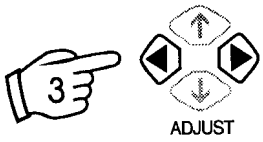


MENU OPERATION

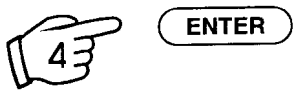
Press MENU repeatedly until the VIDEO MENU is shown.



Press SELECT Up/Down until the desired option is either highlighted or selected.



Press ADJUST Left/Right to adjust to the desired option.



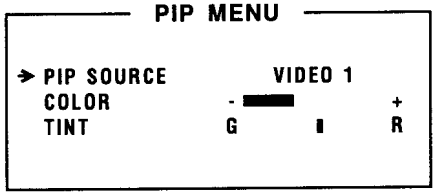
Press ENTER or wait a few seconds for the TV to return to normal operation.

CONTRAST	Adjusts the overall contrast and color level of the picture.
BRIGHTNESS	Adjusts the brightness level of black areas in the picture.
COLOR	Adjusts the intensity of the colors in the picture.
TINT	Adjusts the color of the flesh tones.
SHARPNESS	Adjusts the definition of the object edges for best picture quality.
PICTURE PREF. (Preference)	Selects the video adjustments to be used: (CUSTOM = your personal adjustment preferences; PRESET = factory set adjustments.)

NOTES:

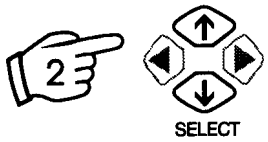
- All adjustments on the VIDEO MENU are optional. It is not necessary to use these features in order to operate the TV.
- Any adjustments made to the VIDEO MENU settings while PICTURE PREF. is in PRESET mode will automatically store the current settings as the CUSTOM setting.

PIP MENU

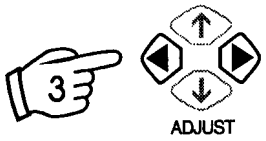


MENU OPERATION

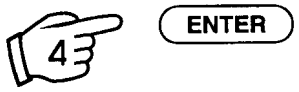
Press MENU repeatedly until the PIP MENU is shown.



Press SELECT Up/Down until the desired option is either highlighted or selected.



Press ADJUST Left/Right to adjust to the desired option.



Press ENTER or wait a few seconds for the TV to return to normal operation.

PIP SOURCE	Chooses the PIP inset source. Press ADJUST Left/right to select desired source.
PIP COLOR	Adjusts the intensity of the colors in the PIP inset.
PIP TINT	Adjusts the color of the flesh tones in the PIP inset, where G is Green and R is Red.

NOTES:

- All adjustments on the PIP MENU are optional. You do not have to use these features in order to use your TV.
- VIDEO 2 is not available as a PIP source.

PIP CONNECTIONS AND OPERATION

INTRODUCTION

Your TV must be connected to two separate sources in order to view a different picture in the PIP inset from that which is showing in the main picture area of the TV. One source (such as an antenna) must be connected to the ANTENNA/CABLE jack. The other source (such as a VCR) must be connected to the VIDEO 1 jacks.

The most common use of PIP is to view two different channels; one from the channel selector of the TV and the other from the channel selector of the VCR. For example, you can view two sporting events or two movies at the same time.

BASIC PICTURE-IN-PICTURE OPERATION

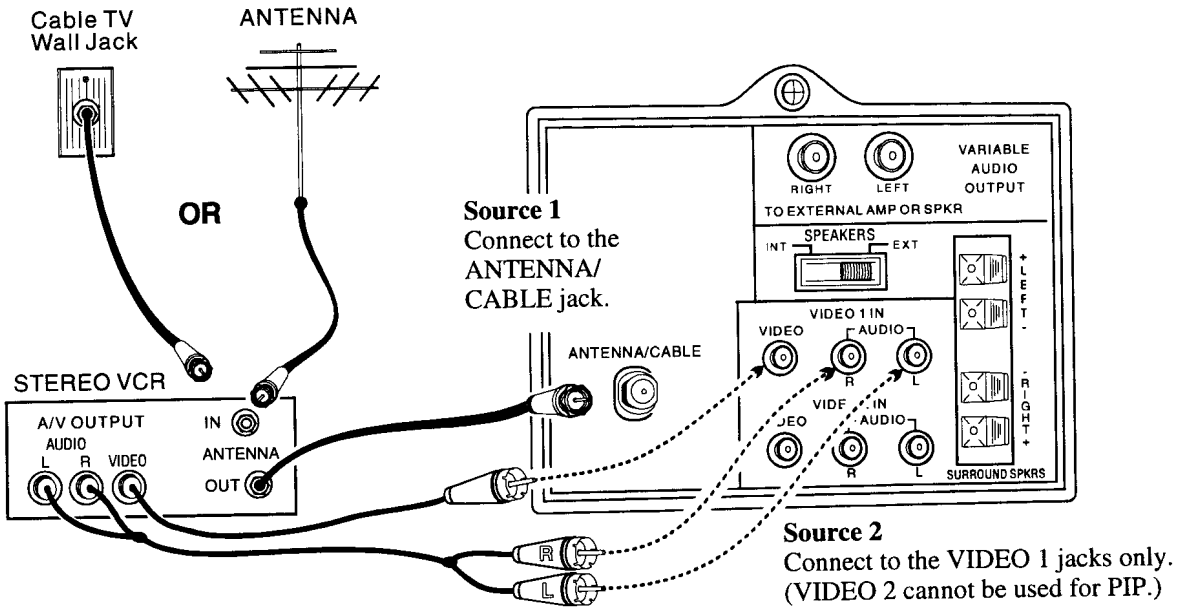
This illustration shows the basic connection of your TV to a stereo VCR. With your equipment setup in this manner, your television has the following PIP capabilities:

- Simultaneously view a video tape playing in the VCR and a channel selected by the TV's tuner.
- Simultaneously view two different channels; one selected by the TV's tuner and another using the VCR's tuner.
- Swap the main picture and the PIP inset.

PIP VIEWING OPTIONS

Viewing Two Different Channels	Viewing a Video Tape and a TV Channel
• Set VCR's TV/VCR* switch to TV.	• Make sure VCR's TV/VCR* switch is set to TV.
• Select Antenna/Cable in the SOURCE MENU for the main picture.	• Select Antenna/Cable in the SOURCE MENU for the main picture.
• Select a channel with the TV's channel selector.	• Select a channel with the TV's channel selector.
• Press PIP key to activate PIP.	• Press PIP key to activate PIP.
• Select Video 1 in the PIP MENU for the PIP inset.	• Select Video 1 in the PIP MENU for the PIP inset.
• Select a PIP channel using the VCR's channel selector.	• Play a tape in the VCR and view it in the PIP inset.

* May be labeled TV/Video.



Connection From Antenna or Cable-TV Wall Jack

PIP CONNECTIONS AND OPERATION

OPTIONAL PICTURE-IN-PICTURE OPERATION

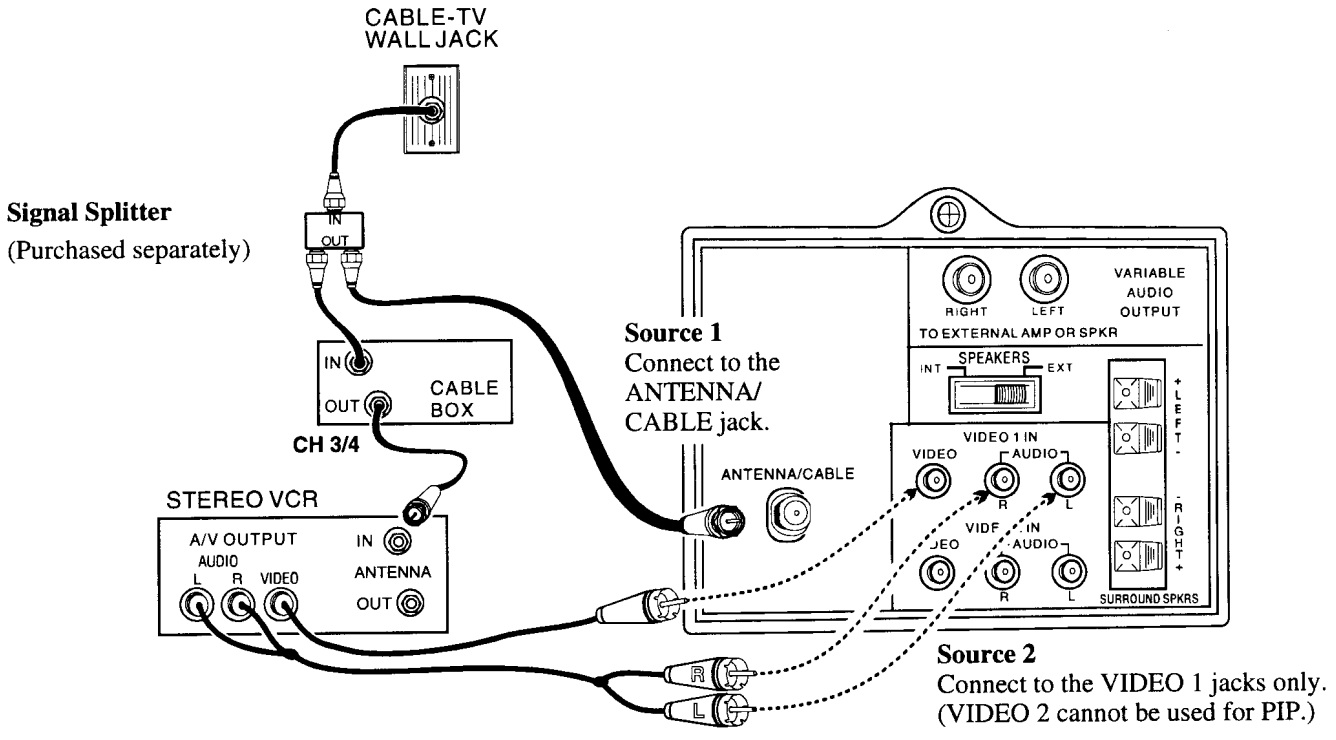
With your equipment setup in this manner, your television has the following PIP capabilities:

- Simultaneously view a video tape playing in the VCR and a basic cable channel selected by the TV's tuner.
- Simultaneously view two different channels; one basic cable channel selected by the TV's tuner and a scrambled (premium) cable channel selected by the decoder's tuner.
- Swap the main picture and the PIP inset.

NOTE:

- The cable channels you can view depends on the service you have purchased from your cable company.

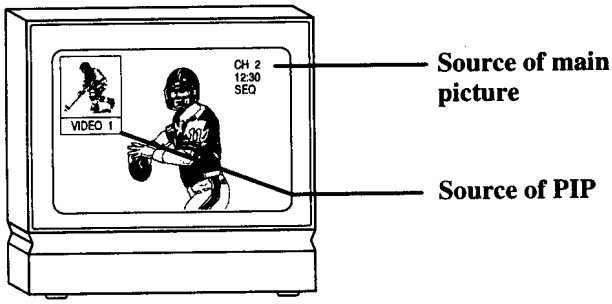
PIP VIEWING OPTIONS	
Viewing Two Different Channels	**Viewing a Video Tape and a Tuned Channel**
• Select Antenna/Cable in the SOURCE MENU for the main picture.	• Select Antenna/Cable in the SOURCE MENU for the main picture.
• Select a channel with the TV's channel selector.	• Select a channel with the TV's channel selector.
• Press PIP key to activate PIP.	• Press PIP key to activate PIP.
• Select Video 1 in the PIP MENU for the PIP inset.	• Select Video 1 in the PIP MENU for the PIP inset.
• Select a PIP channel using the cable box.	• Play a tape in the VCR and view it in the PIP inset.



Connection From Cable-TV Box

PIP CONNECTIONS AND OPERATION

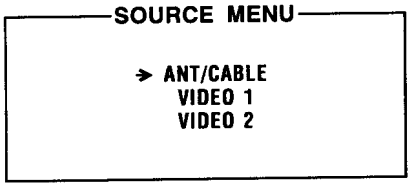
SELECTING MAIN PICTURE AND PIP INSET SOURCES



To Select Main Picture Source

The source for the main picture can be either ANT/CABLE or VIDEO 1. The following example shows selecting ANT/CABLE for the main picture source.

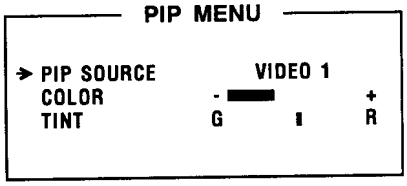
1. Select TV mode of operation on the remote.
2. Press SOURCE on the remote repeatedly until ANT/CABLE is selected.
3. Select channels via the channel selector in the TV.



To Select PIP Inset Source

The source for the PIP picture can be either ANT/CABLE or VIDEO 1. The following example shows selecting VIDEO 1 for the PIP inset source.

1. Select TV mode of operation on the remote.
2. Press PIP on the remote to display PIP inset.
3. Press MENU repeatedly on the remote until the PIP MENU is shown.
4. Press SELECT Up/Down repeatedly until PIP SOURCE is selected. Press ADJUST Left/Right until VIDEO 1 is selected.



5. Use the VCR (or cable box) to change the channel being viewed in the PIP inset or to view a video tape in the PIP inset.
6. Use Up/Down and Left/Right arrow keys to move PIP inset to desired corner.
7. Use SWAP to swap the main picture with the PIP inset picture, if desired.

PICTURE-IN-PICTURE FUNCTIONS

PIP

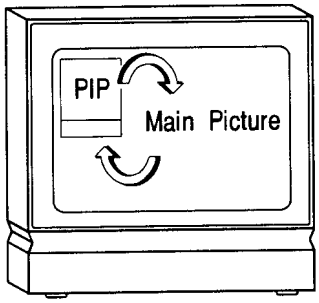
Press the PIP key to display the PIP inset. Press it again to remove the PIP inset.

Moving the PIP Inset Location

Use the Up/Down and Left/Right arrow keys to move the PIP inset to the desired corner of the TV screen.

SWAP

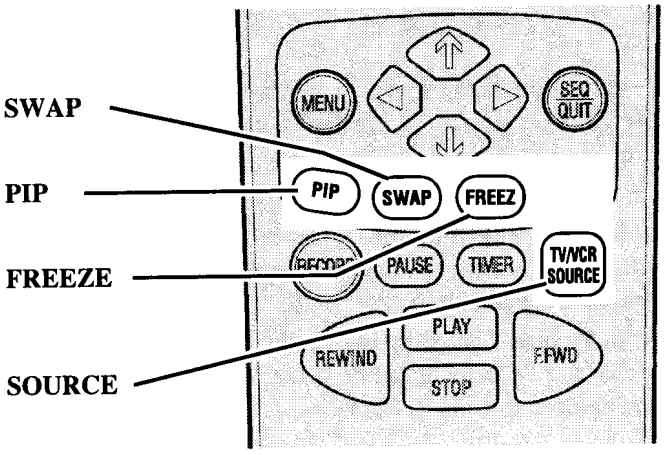
Press SWAP to swap the main picture with the PIP inset. Press SWAP again to return to the original display.



FREEZE

Press FREEZE to freeze motion of the picture shown in the PIP inset. Press FREEZE again to return to a live PIP inset.

When the PIP inset is not currently displayed, pressing FREEZE gives an instant PIP "freeze-frame" of the program you are watching. This function can be used to temporarily retain a phone number or other useful information on the TV. Press PIP to remove the PIP inset and return to normal TV viewing.



PIP Buttons
(Typical Remote Control; your remote may differ from unit shown.)

MAINTENANCE AND TROUBLESHOOTING

CARING FOR YOUR TV

Your TV will look better, have a longer life and perform better if you care for it properly.

First check to see that the TV is off. For added safety, unplug the TV from the power outlet.

NOTE: If you unplug your TV, you will have to reset the clock to the current time.

Cabinet Care

Non-Wood Cabinet or Cabinet Components Moisten a soft cloth with a mild soap solution or Ivory dishwashing detergent. Wipe the surface with a damp cloth. Then rinse the cloth in clean water and wipe the surface again. Allow the TV to air-dry before turning it on.

Wood Cabinets or Cabinet Components Use any good furniture cleaner and polish. Regular care will help preserve the finish.

Picture Glass Cleaning

The picture tube face attracts dust particles and should be cleaned regularly. To clean the face, spray a small amount of glass cleaner on a cleaning cloth and wipe the picture tube glass face until clean. Repeat if necessary.

To delay new dust accumulation, wet a soft cloth in lukewarm water in which a little fabric softener or Ivory dishwashing detergent has been mixed. Wring the cloth almost dry. Wipe the glass face. Make sure no drops of moisture are squeezed onto the glass. Do not wipe the glass dry. Allow the glass to air-dry before you turn the TV on again.

EXTENDED ABSENCE

Before an extended absence (such as a vacation) you may want to unplug the power cord from the electrical wall outlet. This will protect the TV from possible damage from lightning or power line surges. If you have an outdoor antenna, you may also want to disconnect the antenna lead-in wires on the back of the TV.

NOTE: If you unplug your TV, you will have to reset the clock to the current time.

TV PICTURE INTERFERENCE

Your TV picture may be affected by interference caused by one or a number of factors. These include:

Speckled or Streaked Picture Can be caused by nearby automobile ignition, electrical appliances, etc. This is most noticeable in weak signal areas.

Snow in Picture Caused by insufficient signal. Usually caused by the TV being located too far from the TV station or by an improper antenna installation.

Ghosts or Reflections Caused by signals being reflected from surrounding buildings, water tanks, or other high structures.

Radio Signal Police, amateur or CB radio transmitters may cause interference.

These interference problems can often be corrected through the use of a better antenna, signal amplifiers, or various filter devices. See your TV dealer for additional information, and available TV accessories.

MAINTENANCE AND TROUBLESHOOTING

BEFORE CALLING FOR SERVICE

Check these items and see if you can correct the trouble by changing the adjustment of a control or the setting of a switch.

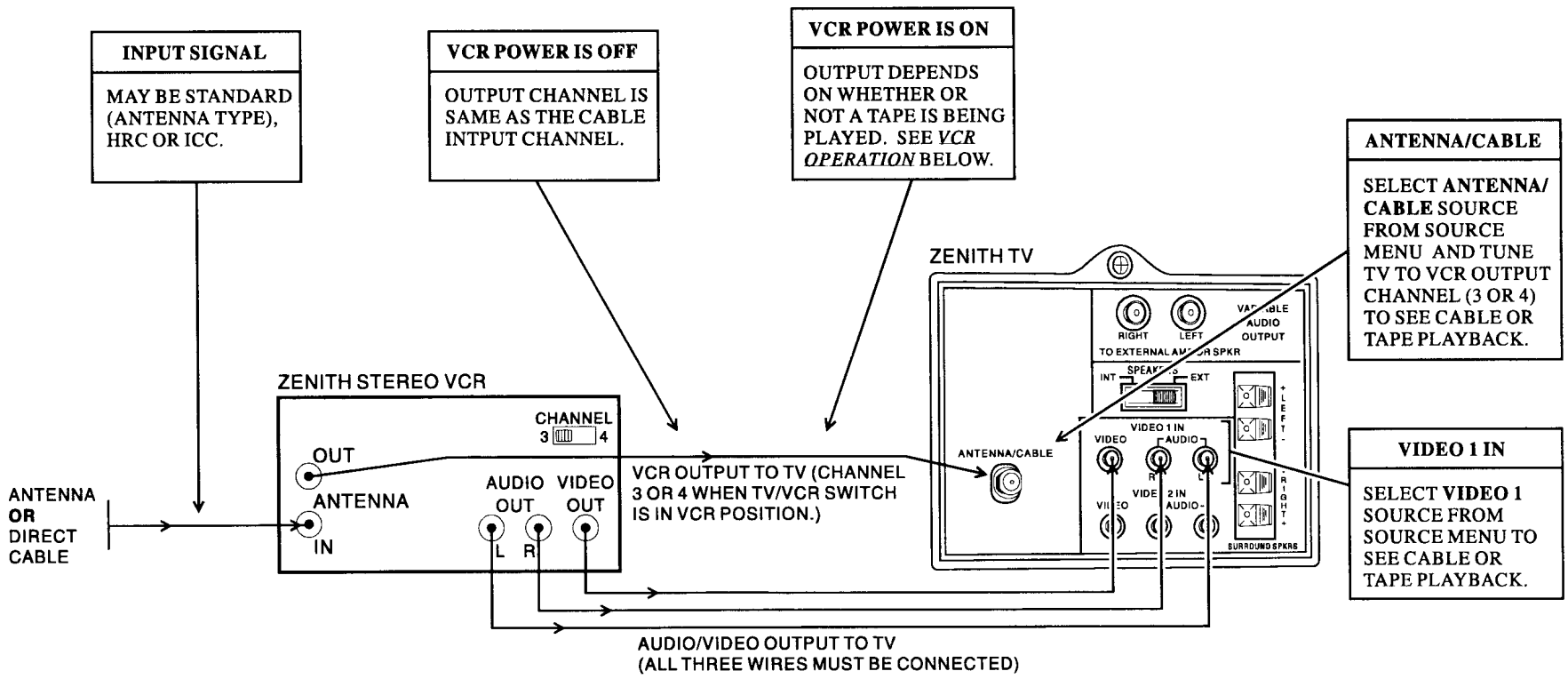
By making these simple checks before calling for service, you may save time and money.

Problem	Try This
Picture OK. Poor sound.	Re-orient antenna. Try another channel — possible station trouble. Adjust AUDIO MENU options. Check for local interference. Is antenna/cable connection loose?
Sound OK. Poor picture.	Re-orient antenna. Try another channel — possible station trouble. Adjust VIDEO MENU options. Trouble with cable-TV system? Is antenna/cable connection loose?
No picture or sound.	Is TV on? Is there power in wall outlet? Is TV plugged in? Is antenna hooked up? Is cable hooked up? Is the channel blocked by the PARENTAL CONTROL? Trouble with cable-TV system? Check auxiliary audio/video equipment. Check channel selection.
Picture blurred or distorted. Ghost in picture.	Check antenna or cable hook up for broken wires. Try another channel — possible station trouble. Check for local interference.
No color, or poor color.	Is it a color program? Check antenna or cable hook up for broken wires. Adjust VIDEO MENU options.
No sound.	VOLUME (VOL) setting may be too low. Check MUTE button operation on remote control.
Cannot select certain channels.	Channels may be skipped in CH. ADD/DEL option of SETUP MENU.
No closed captions	Are captions available? Is CAPTION 1, 2, 3 OR 4 selected using the CAPTION/TEXT option on the SETUP MENU?
Black or blue box covers half of screen.	Is text information available? Is TEXT 1, 2, 3 or 4 selected in the CAPTION/TEXT option of the SETUP MENU.
No picture or sound when VIDEO 1 or VIDEO 2 source is selected.	Is audio/video source hooked up properly? Are all wires connected to VIDEO 1 IN or VIDEO 2 IN jacks on connection center?
No stereo sound or weak stereo sound when using a stereo VCR.	Check AUDIO mode. Was stereo sound present before selecting VIDEO 1 or VIDEO 2 source?
PIP inset frame is black or lacks contrast when selecting VIDEO 1 for PIP inset.	Adjust PIP COLOR AND CONTRAST settings in PIP MENU. Are all wires connected to VIDEO 1 IN jacks on connection center?
PIP inset frame is "snowy" when using ANT/ CABLE for PIP and VIDEO 1 for main picture.	Is TV/VCR switch on the VCR in the TV position?
Complete picture loss when using VIDEO 1 for PIP insert source and ANT/CABLE for main picture.	Is TV/VCR switch on the VCR in the TV position?
Remote control does not work.	Are batteries okay? Is TV turned ON? Is TV plugged in?

Always request that your technician use only genuine Zenith exact replacement parts for continued Quality and Safety performance. Keep your Zenith **ALL** Zenith.

NOTES:

- If your TV fails to respond to the PICTURE PREF. selection, or to any other menu selection, you must reset the TV. Simply disconnect the AC power cord from the power outlet. Wait a few minutes, then plug the TV back into the power outlet. You will have to reset the clock to the current time.
- Unplugging the TV does not deactivate the Parental Control.



VCR OPERATION WITH POWER ON	
TAPE PLAYBACK	PLAYBACK IS PROVIDED AT ANTENNA OUT (CHAN 3 OR 4) AND AT A/V OUTPUT JACKS. STEREO AUDIO IS PROVIDED ONLY VIA THE A/V OUTPUT.
TV/VCR SWITCH IN TV POSITION	CABLE SIGNAL PASSES THROUGH VCR TO TV. SELECT CABLE CHANNEL AT TV. STEREO AUDIO IS PROVIDED IF PRESENT.
TV/VCR SWITCH IN VCR POSITION	CABLE SIGNAL IS PROCESSED IN VCR. SELECT CABLE CHANNEL AT VCR. PROGRAM IS PROVIDED TO TV AT ANTENNA OUTPUT AND A/V OUTPUT.
RECORD A TAPE	SELECT CABLE CHANNEL AT VCR WHEN TV/VCR SWITCH IS SET TO VCR. FOLLOW THE INSTRUCTIONS FOR YOUR VCR TO RECORD A PROGRAM.

TV OPERATION	
TAPE PLAYBACK (TV/VCR SWITCH SET TO VCR)	USE THE AUX CHANNEL FOR BEST PICTURE QUALITY AND STEREO AUDIO DURING TAPE PLAYBACK. OR, SELECT CHANNEL 3 OR 4 TO SEE TAPE PLAYBACK BUT WITHOUT STEREO SOUND.
WATCHING A CABLE CHANNEL	SET TV TO CHANNEL 3 OR 4 AND SELECT CABLE CHANNELS AT VCR. (ALSO PROVIDED TO AUX CHANNEL WHEN VCR IS ON.)
PIP (WITHOUT TAPE PLAYBACK)	1. SELECT **ANT/CABLE** SOURCE FOR THE MAIN PICTURE AREA. 2. SELECT **VIDEO 1** SOURCE FOR PIP INSET. 3. PRESS SWAP BUTTON TO EXCHANGE THE PICTURES.

SYSTEM OPERATION WITH ANTENNA OR DIRECT CABLE, STEREO VCR AND TV

YOUR ZENITH WARRANTY

Consumer Protection Plan for Zenith TV

Welcome into the Zenith family! We believe that you will be pleased with your new Zenith Color TV. Please read this Consumer Protection Plan carefully. It is a "LIMITED WARRANTY" as defined under Federal Law. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state within the U.S.A.

Zenith's Responsibility

Service Labor — During a period of 90 days from effective warranty date, Zenith will pay for service labor by a Zenith authorized service center when needed as a result of manufacturing defects.

Parts — New or remanufactured replacements for factory-defective parts will be supplied by a Zenith authorized service center for one year from effective warranty date (color picture tube — two years). Such replacement parts are warranted for the remaining portion of the original warranty period.

Home Service — Warranty service for 19" diagonal (U.S.A.) or larger screen size models is provided in the home in most cases. (Some repairs may require the unit to be taken by the servicer to the repair facility and returned, at no additional charge.)

Not Covered — This warranty covers manufacturing defects and does not cover installation, adjustment of customer controls in the home, installation or repair of home antenna systems, cable converters or cable company-supplied equipment; it also does not cover damage due to misuse, abuse, negligence, acts of God or other causes beyond the control of Zenith. Any alteration of the product after manufacture voids this warranty in its entirety.

Owner's Responsibility

Effective Warranty Date — Warranty begins on the date of original consumer installation. For your convenience, keep the dealers dated bill of sale or delivery ticket as evidence of the purchase date.

Operating Guide — Read your Operating Guide carefully so that you will understand the operation of your set and how to adjust the customer controls.

Carry-In Service — Models under 19" diagonal (U.S.A.) screen size must be taken to a Zenith authorized service center for warranty service and must be picked up by the owner.

Antenna — Reception problems caused by inadequate home antennas or faulty antenna connections are the owner's responsibility.

Important: Product Registration — Please fill out and mail your Product Registration Card. It is imperative that Zenith know how to reach you promptly if we should discover a safety problem that could affect you.

Warranty Service — For warranty service information, contact your Zenith dealer preferably, or any Zenith authorized service center. Parts and service labor that are Zenith's responsibility (see above) will be provided without charge. Other service is at the owner's expense. If you have any problem in obtaining satisfactory warranty service, write:

Zenith Electronics Corporation
Customer Service Department
1000 Milwaukee Avenue
Glenview, Illinois 60025-2493
Telephone: (847) 391-8752
Mon-Fri, 8:00 a.m. - 4:30 p.m. Central Time

NOTE: Before you ask for Warranty service, check the Operating Guide section entitled, "MAINTENANCE AND TROUBLESHOOTING." It may be possible to avoid a service call.

ZENITH ELECTRONICS CORPORATION
1000 MILWAUKEE AVENUE
GLENVIEW, ILLINOIS 60025

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